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AIR CONDITIONING AND REFRIGERATION News

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Inside Dope

By George F. Taubeneck

Sweet Was There
Bigdome Arrivals
Blanketing the Big Ditch
And That's Another Story
Art Scaife Suggests:
'Keep It Simple'
Distributors Need
To Get the Facts

Sweet Was There

In one of our recent columns about radar, we mentioned the pioneer set put up in Panama about a year prior to Pearl Harbor. We didn't know it at the time, but it turns out that one of our editorial staff—Jack Sweet—was assigned to that radar station for several months.

Jack tells us that this station, located in the hills across the bay from Colon on the Atlantic side of the Isthmus, was credited with being the first radar unit put into actual military operation by the Army. "No. 1" was stamped on all its equipment.

As Jack recalls it, this unit was set up "on the double" by a small band of G.I.'s hurriedly rounded up at the Signal Corps headquarters in Fort Monmouth (New Jersey) when it finally seemed beyond question that the world was in for a rough time.

What with a lot of things about radar yet to be worked out, this "task force" did plenty of sweating down there in the Canal zone to get their set properly calibrated and kill the "bugs" that kept popping up.

These boys not only nursed and cursed their high-frequency baby into a mature electronic chaperon of adjacent Carribean air and water, but not a little critical information on radar problems under actual field operation came out of their efforts.

Much valuable dope these dog-faces turned up while bringing up their baby proved of great benefit to the experts back in the laboratories in "Estados Unidos."

Bigdome Arrivals

From time to time, some of the big theory boys from MIT would drop down to Panama, take a GI truck into the hills, and see what the boys at Station 1 had come across that they ought to know about.

By the late Spring of 1942, when our miserably sea-sick Mr. Sweet staggered down the gangplank at Balboa and offered praises to Allah for an Army double-decker at Fort Clayton, Station 1 was old enough to have children.

These seeing-eye tots had begun to grow up in the jungles and islands all along the coasts of Panama, from Costa Rica to Colombia.

A half-dozen or so of Station 1's offspring became restless, and ran away from home to that bleak, barren lava formation, the Galapagos Islands, which lie some 800 miles off the coast of Ecuador. However, they soon grew to responsible adulthood as dependable but lonely members of the family.

Blanketing the Big Ditch

And so, from this embryonic beginning back in 1940 grew a chain of radar stations which hung an electronic blanket around the Big Ditch. With long-range and short-range, low-searching units alternately spaced, these stations continuously searched the air and surface of the Atlantic and Pacific, and radioed all targets to a bomb-proof, underground information center in the Canal Zone.

Through these flashes pouring in 24 hours a day, and through reports from visual and other sources

(Concluded on Page 8, Column 1)

Joint Meeting Plans Scheduled by Rema, REWA

PITTSBURGH—Final plans for the joint Spring meeting of the Refrigeration Equipment Manufacturers Association and the Refrigeration Equipment Wholesalers Association set for March 4-7 in Chicago's Hotel Stevens were rounded out at a recent meeting of committees from both organizations.

The convention will get under way Monday, March 4, with the product section luncheon and meeting and the annual board of directors meeting. These sessions will be followed on Tuesday with a closed REMA membership meeting, a joint luncheon of manufacturers and wholesalers, and opening of the conference booths.

After a combined meeting of the two groups Wednesday morning in the north ballroom and further conferences in the booths in the afternoon, the evening will be given over to a banquet, floor show, and dancing in the Grand Ball Room on Wednesday night. Final booth conferences on Thursday will wind up the parley.

Chief topics that will be gone over at the joint session of manufacturers

(Concluded on Page 4, Column 1)

Avco Buys Interest In Freezer Firm

NEW YORK CITY—The Aviation Corp. has acquired a 40% interest in Frozen Food Products, Inc., a company recently organized by interests close to Lehman Bros. to carry out plans for the design and distribution of home freezing units for frozen foods, it was announced Jan. 29 by Victor Emanuel, chairman of the board of Avco.

Avco has a contract for the exclusive production of the new company's 3-ft. home freezing units, Mr. Emanuel said. The units will be manufactured in one of the plants of the Avco group of companies.

The expansion is a part of The Aviation Corp.'s postwar diversification program, which has included an expanded position in the home appliance field through acquisition of controlling interest of the Crosley Corp., and entry into the farm implement field through purchase of control of New Idea, Inc.

"Studies have shown that the frozen food industry is one of the most rapidly growing businesses in the country," said Mr. Emanuel. "We expect our participation in this business to expand, to help increase employment and manufacturing activities."

Robertson Heads Canadian Universal Cooler Co.

BRANTFORD, Ont, Canada—Dan Robertson, for the past 16 years vice president of Universal Cooler Co. of Canada, Ltd., was elected president at the annual meeting of the company here Jan. 25.

He succeeds F. S. McNeal, who also is general manager of Universal Cooler Division, Marion, Ohio, and a vice president of International Detrola Corp., of which Universal Cooler of Canada is an affiliate.

Howard Gray, for two years treasurer of the Canadian company, was elected a vice president, in addition to his financial post.

Mr. Robertson said that the Brantford plant, which during the war manufactured many kinds of munitions, has completed its physical reconversion and is again producing refrigerating and cooling equipment, with expectation of reaching normal output rate in April.

A.S.H.V.E.'s President

ALFRED J. OFFNER

* * *

ASHVE Hears Talks On Navy Research

By C. Dale Mericle

NEW YORK CITY — Human reactions to numerous aspects of air conditioning and refrigeration provided the dominant note of technical sessions of the fifty-second annual meeting of the American Society of Heating & Ventilating Engineers held at the Commodore hotel here last week.

Condensed reports of extensive research conducted at the society's engineering laboratories early in the war for the Navy's Bureau of Ships were presented for the first time by those in charge of experiments. And among other papers, one on "Therapeutic Uses of Low Temperature" was given by Dr. Frederick M.

(Concluded on Page 17, Column 3)

Heat-X-Changer Produces Cast Aluminum Lowside

BREWSTER, N. Y.—The Heat-X-Changer Co., Inc., formed by Cecil Boling of New York City, is now in production on a cast aluminum liquid cooling lowside, which it has had under development for some time.

Manufacturing operations are being conducted in a new plant in Brewster which was built on a large parcel of land purchased from the New York, New Haven, and Hartford Railroad.

The Heat-X-Changer Co. activities

(Concluded on Page 20, Column 1)

Prewa Production By Mid-year Seen For Appliances

WASHINGTON, D. C. — In s monthly progress report, the an Production Administration p ted a silver lining to the dark electrical appliance cloud with a prediction that by mid-year, production would hit prewar volume.

At the same time, CPA disclosed that December output of most appliances was 10% to 30% above November levels. The agency put the finger on strikes and shortages of materials, component parts, and fractional horsepower motors as responsible for holding back production.

CPA said some appliances were kept off the market until manufacturers had a stockpile big enough to provide each dealer with demonstration models.

Production of refrigerators probably will reach prewar quantity by June, CPA predicted. It said that 150,000 units were shipped in December, 30% more than in November and approximately half of the 300,000 shipped monthly before the war.

Electric ranges should be at prewar levels by April, CPA thinks, if production is not impeded by work stoppages and lack of materials and parts. December's shipments totaled about 30,000, the agency reported, which was twice the volume for October and a 12% increase over

(Concluded on Page 20, Column 1)

Kaiser to Introduce 'Jet' Dishwasher

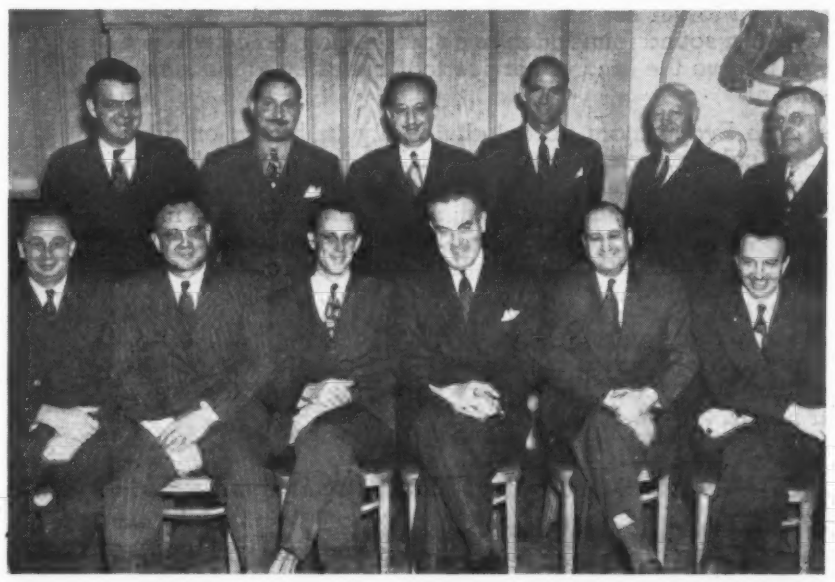
BRISTOL, Pa.—A "jet-propelled" aluminum dishwasher powered by ordinary faucet water pressure will go into production probably this Spring at the Fleetwing branch here of Kaiser Aircraft Division, according to an announcement by Henry J. Kaiser, president of Kaiser Co., Inc.

Tooling up of the plant is near completion now, Mr. Kaiser said, and arrangements are being worked out with parts suppliers. He stated that production of the low-priced, motorless dishwasher is expected to start in April or May.

Sales of the "Kaiser Jet-Propelled Dish-Washing Machine" will be handled mainly through department stores, according to Mr. Kaiser. He said the current production schedule calls for 10,000 units monthly.

Kaiser-Fraser Corp., of which Mr. Kaiser is chairman, is not connected with this program, it was stated.

They Head National Contractors Assn.



Here are officers and directors of the newly formed National Association of Refrigeration Contractors: Left to right, seated—L. C. Anderson, River Forest, Ill.; W. Ray Kromer, Cleveland; Warren W. Farr, Cleveland, president; M. M. Jamison, Dayton, Ohio, vice president; E. S. Wright, Youngstown, Ohio, recording secretary; A. M. Palen, Minneapolis, treasurer. Standing, left to right—W. E. Booth, Richmond, Va.; W. L. Drake, Indianapolis; Nathan Edelstein, New York City; C. R. Faulkner, Longview, Tex.; Lee Shirar, Los Angeles; William G. Euth, Detroit.

Electric Strike Continues; Brass Walkout Likely

Westinghouse Tells How 'Bulging Warehouses' Rumor Was Started

NEW YORK CITY — With prolonged strikes by CIO steel and electrical workers already threatening to curtail sharply much of the nation's production soon, the appliance and refrigeration industries are confronted with still another serious strike possibility. Some 65% of the country's brass plants may be closed beginning Feb. 4, it was indicated by union leaders.

Although talks between union officials and heads of the General Electric Co. and Westinghouse Electric Corp. were resumed several days ago following the appointment of two government mediators, no developments have been forthcoming. Approximately 200,000 members of the United Electrical, Radio & Machine Workers are on strike in 79 plants of G-E, Westinghouse, and electrical divisions of General Motors Corp. The dispute centers around the $2 a day wage boost asked by the union.

Last week heads of the electrical union conferred and announced that they were "Fully prepared for a determined and, if necessary, long struggle for a living wage."

J. H. Ashbaugh, vice president in charge of the Westinghouse Electric Appliance Division, who spoke at the first postwar showing of the complete Westinghouse line held at the Waldorf-Astoria here last week, said the appliances won't be on the market in any quantity until after this summer.

"We were well on our way to being up to quantity production on our predetermined schedule of seven months when the strike stopped our program," Mr. Ashbaugh declared.

Emphasizing that Westinghouse had shipped 92% of all appliances which were manufactured in 1945, Mr. Ashbaugh told a NEWS representative that 70% of all appliances made had actually reached the hands of consumers.

"We are absolutely certain of that," he said, "because we shipped out refrigerators, for example, with only one ice tray. With the refrigerator we enclosed a postcard so that consumers could mail it to us and be assured of receiving the rest of the trays when they are available. "The postcards we received indicated that 70% of the refrigerators had been sold to consumers."

The union stirred up considerable controversy by its charges some time ago that manufacturers were holding back appliances, perhaps waiting for higher prices and hoping to take advantage of the reduction of excess profits taxes Jan. 1.

The "inside story" on how this rumor probably started was revealed to the NEWS by Mr. Ashbaugh.

"At a union 'pep' meeting held in

(Concluded on Page 4, Column 5)

Jacobs Plans Addition To Appliance Plant

INDIANAPOLIS — Ground was broken here recently for construction of an addition to the appliance plant of F. L. Jacobs Co. in which automatic washing machines and bottle-vending machines are manufactured. Rex C. Jacobs, president of the company which produces household appliances and automotive parts, announced plans for enlargement of the plant.

EXECUTIVE AVAILABLE

● Twenty-five years connection with leading Household Refrigeration Manufacturing Companies — covering design, production, sales, and Private Brands.

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● If you are looking for a practical, hard working man with excellent background, sound ideas, and an *outstanding production record.*

Address Box 1914,

Air Conditioning & Refrigeration News

Most Talked About at the Mart: Production Prospects for 1946, Appliance Trends, OPA

By Ross Potter

CHICAGO—As far as the visitors at the Winter Furniture Mart were concerned—dealers, buyers, returning veterans, manufacturers' representatives—it was a chance to ask questions and talk out the answers.

These were discussion points that kept coming up:

1. What are the production prospects for 1946?
2. What appliance trends seem to be in the wind?
3. What about government controls—OPA, and Regulation W?
4. What's the outlook for returning veterans?

Production Prospects

Supply problems held 1945's refrigerator production to less than half the industry's anticipated output, one manufacturer's agent pointed out. The industry would have been ready this year for greater production schedules than ever before, but with critical materials still scarce and manpower now uncertain, no prediction figures are possible.

A few manufacturers, for instance, have had to ship their refrigerators into the field minus non-essential parts such as evaporator doors and ice trays. It was that, or shut down production entirely. The parts can be added later, for they do not affect the mechanical operation of the units.

Current strikes promised to shut down not only the Big Three directly under attack, a New York distributor volunteered, but could in a short time force the many other companies, dependent on parts made by them, out of the running.

The spokesman for another company said, "If the steel strike isn't called, and the electrical workers go back to work, we're in shape to ship an increasing number of ranges and refrigerators throughout the year—provided we can get some lumber for shipping crates."

The failure of any one of these three components, however, promised to make delivery schedules worthless, he added.

Two other manufacturers would soon fall well behind their production capacities because of shortages of fractional horsepower motors, they reported.

Since major emphasis could not be given to orders or future deliveries, the majority of manufacturers stressed floor display and selling ideas to help their dealers. The consensus seemed to be that the peak of production and delivery could not be expected before the end of the year.

Appliance Trends

The presence of an unusually large number of buyers and dealers representing furniture and other chains gave some indication of major appliance line trends in their direction.

The furniture store of the future will be more departmentized, handling many lines for the home under individual sales treatment, the publisher of a Chicago trade paper covering the mart predicted. He believed the complete kitchen will be found more and more effective as a sales unit.

The acceptance of the kitchen sink as an appliance is growing among electrical dealers, according to a St. Louis man whose firm distributes to the plumbing, furniture, and building trades. The sink-dishwasher-garbage disposer combination has proved a very good item, he said.

Several buyers had expected a big swing to automatic washers by the manufacturers. Actually there were comparatively few. More emphasis was given to apartment house models, and to small portable washers played up as a second unit in the home. Automatic washers by different manufacturers are coming, but most of them are still in the experimental stage, not yet ready for showing.

Radio styling trends showed a resolution toward cleaner style lines, easier to read dials, better symmetry (the dial in the center, the controls balanced on either side), and concealed controls. In actual production these changes, of course, will come more slowly until manufacturers use up chassis and parts on hand.

Items that did attract major interest were Norge's portable water cooler, Pressed Steel's standard electric range, and Refrigeration Corp. of America's prefabricated walk-in cooler.

The portable water cooler was described in last week's detailed story on the exhibits. It was a new appliance, however, and buyers talking it over with Norge officials seemed to think it would appeal to an unusually wide market.

Pressed Steel is a newcomer in the major appliance field, and its standard "Presteline" range so far is the only unit that has appeared of the full line that the company has announced it will manufacture. It received a lot of good comment.

The range got an unexpected boost when the *Better Homes & Gardens* experimental kitchen, shown nearby at the mart, featured a non-identified range design (four cooking units in a row across the back) that had won greatest popular approval in a national BH&G poll. Of all the brands shown, only the Presteline range had this design.

Refrigeration Corp. of America's prefabricated aluminum sectional walk-in cooler, shown at the mart, was one of the only two built so far. The other is at Macy's, providing the first instance of a department store's showing of a walk-in cooler as a sales item. At the mart, it was RCA's first midwestern exhibit.

No definite plans were discussed for Proctor's supercharged surface burner for electric ranges, but its performance attracted considerable attention. The heating element is hiked to four times its normal operating temperature in 35-40 seconds, and a thermostatic control will hold it there as long as desired.

A safety relay will turn off the element if the container over it boils dry. Reconversion plans are still going on, however, and the settlement of these will determine Proctor's extension of the unit to electric range manufacturers.

Government Controls

OPA had a booth at the mart, set up "to clarify pricing problems for both manufacturers and retailers" during the two weeks of the mart, but according to unkind words bandied about, nobody loved OPA.

"OPA hasn't accomplished a thing in promoting lower price merchandise," said a dealer from Rensselaer, Ind. "No dealer's going to buy stuff with little or no markup value. I don't say do away with all OPA controls, but if they'd take the pressure off, competition would work out the answers."

OPA's Order 4800 had been announced just before the mart opened, shifting price increases largely to the dealer's shoulders, and that, of course, was the source of most of the complaint.

OPA hasn't taken into consideration the additional expense that the retailer has to take on when active selling begins, was the gist of it.

One firm has actually had to reduce its sales staff, according to a member of the company present at the mart.

"We had 10 salesmen before the war," he reported. "Now the boys are coming back, and there isn't enough markup on appliances to warrant the firm's *having* salesmen."

Regulation W was given general approval, not as a permanent control to be exercised by a governmental agency, but as a measure that was needed when credits were getting out of hand, and one which the industry itself will carry on when the Regulation has been withdrawn.

"If credits had been verified before the war in the way that we have had to since then, the business of instalment selling never would have fallen so low," a dealer put it.

One Salt Lake City firm didn't wait for the government to regulate its credit terms. This company set up an instalment policy in 1940 that gave customers up to a year to pay for furniture, and 20 months for appliances.

When Regulation W came, the store's business changed from 95% time payments to 65-70% cash, the manager said. Now it's swinging back into instalment selling, and probably will be doing 75% of its selling on credit by the end of the year.

Returning Veterans

The Veterans' Placement Committee kept open house during the mart, set up for veterans looking for jobs in the furniture and appliance industry.

They reported a steady stream of servicemen between 40 and 50 a day. The industry apparently is doing pretty well on its own, for many of the buyers and dealers visiting the mart were wearing honorable discharge buttons.

The Committee pointed also to a recent survey by NAM showing that the industry so far has hired more than three times the number selective service would have required.

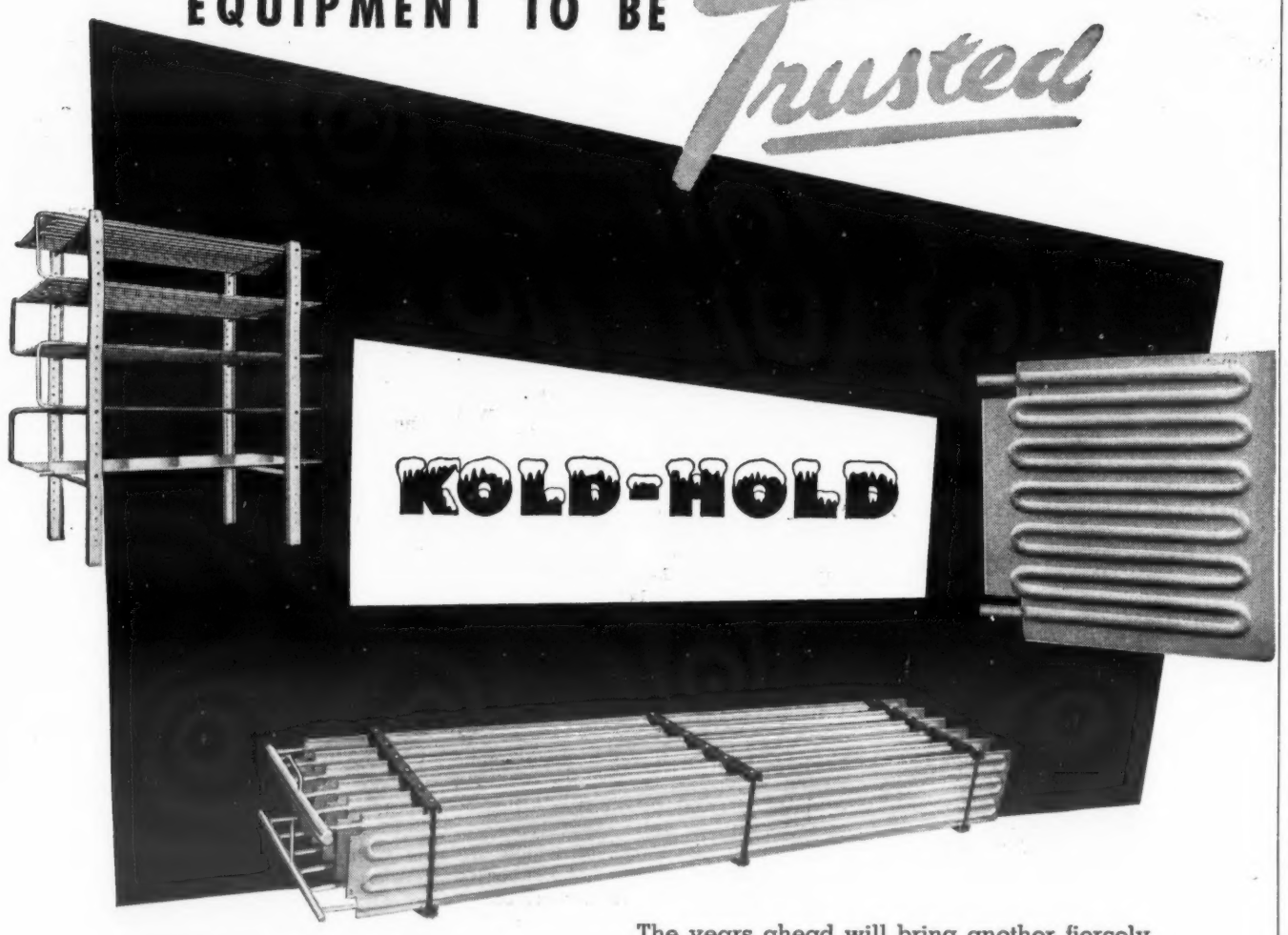
The greater difficulty was one of getting merchandise to former servicemen setting up shop for themselves. Here OPA was under fire again, since its terms protecting established accounts on a quota-selling basis tended to leave new firms out in the cold.

A distributor from Florida summed it up this way:

"Most of the new shop owners in my territory are Navy men who like the climate and would like to go into business for themselves. Most of them have had little or no experience in appliance retailing.

"We try to be as fair as we can. It's hard to tell them there's no merchandise, but that's kinder than giving them what few appliances we could, now, and letting them open shops. They'd sell their first allotments, and they'd probably starve before they could get any more."

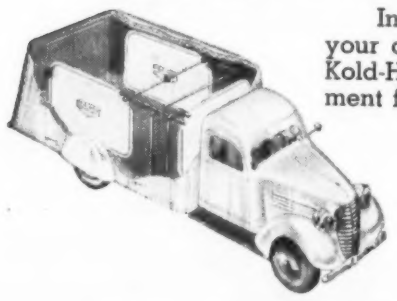
EQUIPMENT TO BE *Trusted*



The years ahead will bring another fiercely competitive era . . . supply and demand will again be equal . . . goods will sell on the basis of merit, not scarcity.

That's why it is important for you to get set now with refrigeration equipment that can be *trusted* . . . that has under it a sound foundation of dependability, efficiency and acceptance. This will enable you to give the kind of service that builds solid customers in the face of the stiffest competition.

Kold-Hold Serpentine Plate Type Evaporators used individually in banks or fabricated into complete plate stands or cabinet liners, have established their dependability through years of meeting the exacting demands of diverse applications. Kold-Hold Serpentine Plate Type Evaporators provide many outstanding advantages . . . maximum prime surface; highest rate of plate heat acceptance ever attained with natural convection low sides; minimum pressure drop; no possibility of short-circuiting or oil logging; larger "K" factor.



Investigate this better refrigeration now . . . be prepared to give your customers the best service money can buy. Write for the new Kold-Hold Catalog, then let our engineers help you select the equipment for your needs.

Kold-Hold "Hold-Over" Truck Plate Type Evaporators will give you better truck refrigeration, too. Get the facts on how to afford the best possible protection for perishables in transit.

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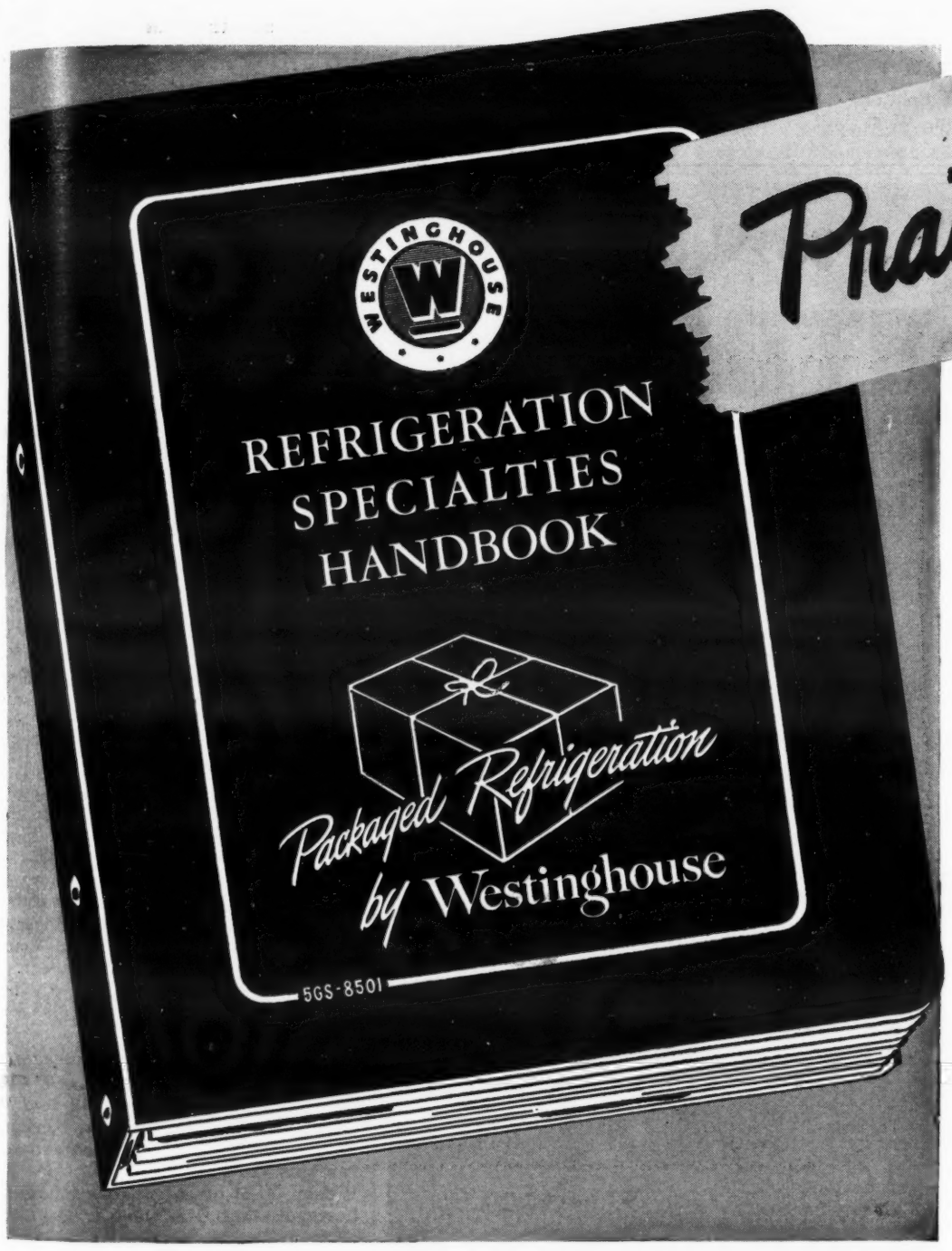
WITH A WESTINGHOUSE REFRIGERATION SPECIALTIES FRANCHISE YOU GET



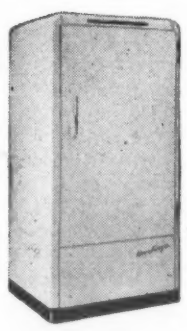
Practical Selling Help . .

Based on many years of *practical field experience* . . . applying, installing and servicing refrigeration specialty appliances . . . Westinghouse backs up its dealers with this *practical help.*

Westinghouse supplements a fine *packaged* product line with proved selling plans, technically developed application data, complete service assistance—the kind of selling help dealers need to do a profitable commercial refrigeration business.

Every dealer is fully equipped with a complete portfolio . . . a Salesmen's Handbook of Refrigeration Specialties, embodying in readily usable form all the information, data and working tools necessary to sell the full line . . . individual product data and specifications . . . special application data . . . selling tools including folders, direct mail and advertising . . . and individual sales plans for each product.

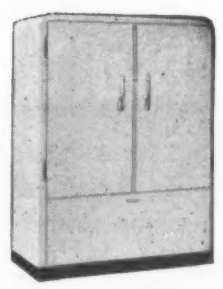
Behind the Westinghouse franchise is the experience of more than 50 years of designing, manufacture and selling of electric appliances . . . practical experience which has been translated into *sound selling help.* It is made available to every Westinghouse dealer and his salesmen.



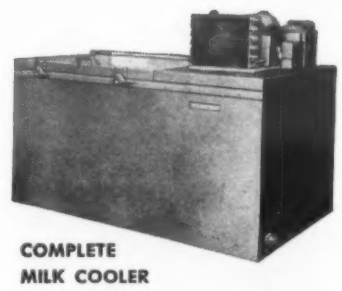
FARM FREEZER

BEVERAGE COOLER

ALL WITH HERMETICALLY-SEALED REFRIGERATION UNITS



REACH-IN REFRIGERATOR



COMPLETE MILK COOLER

A Complete Line of Refrigeration Specialties Products

Factory Engineered and Factory Assembled — Shipped to You Ready to Use

EASY TO APPLY—Simplified application charts to make your job easy. Sizes and models for all applications.

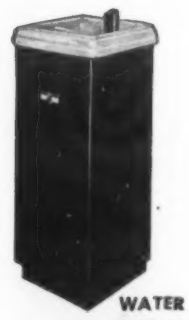
EASY TO INSTALL—Complete *packaged* units ready to plug in—no wiring or assembling necessary.

EASY TO SERVICE—Complete factory instructions specially developed for dealer servicing — hermetically-sealed construction simplifies replacement, if necessary.

For details about the availability of these products, write to Westinghouse. We will have the distributor *in your territory* call directly on you and present complete franchise information.

ROOM AIR CONDITIONER

DROP-IN MILK COOLER UNITS



WATER COOLER

WESTINGHOUSE ELECTRIC CORPORATION

Plants in 25 Cities • • Offices Everywhere

Refrigeration Specialties Dept. Springfield, Mass.

Joint Meeting--

(Concluded from Page 1, Column 2)

and wholesalers are merchandising, credits, salesmanship, and advertising. Principal speaker will be George J. Jones, of Servel, Inc., who is slated to discuss merchandising.

Representatives of both groups are expected to give the subjects of nonproductive advertising and shows a thorough airing.

REMA's All-Industry Refrigeration and Air Conditioning exhibition and its public relations activity will be presented, according to an announcement of the convention by R. Kennedy Hanson, executive secretary of REMA. He said REMA's closed session will be confined to problems of manufacturers.

No exhibits of any sort will be allowed during the convention, it was announced. Only table literature and catalogs will be permitted in the booths.

In a bulletin sent to members of REMA, Mr. Hanson said that an inspection of the booths would be made by a committee in advance of the convention opening to insure strict observance of REMA booth regulations. Members were reminded that displays of merchandise, parts, or equipment in hotel rooms are also prohibited and should not be brought to the meeting by individual companies.

Chairmen of the Product Section have been announced as follows:

Heat transfer equipment, L. A. DeMore, Dole Refrigerating Co.; highside equipment, B. J. Scholl, Brunner Mfg. Co.; temperature controls, R. M. Van Vleet, Cutler-Hammer, Inc.; flow control valves, H. F. Spoehrer, Sporlan Valve Co.; valves and flare fittings, G. W. Wilson, Henry Valve Co.

Water coolers, C. M. Cordley, Cordley & Hayes; refrigerants, lubricating oils and chemicals, F. J. Hood, Ansul Chemical Co.; tubing and sweat fittings, W. H. Maxwell, Wolverine Tube Division; and general product group, M. R. Oberholzer, L. H. Gilmer Co.

A committee composed of Charles H. Benson, Harry W. Jarrow, and L. A. DeMore was to have met in Chicago Feb. 1 to open booth-application letters. It was stated that booth assignments would be made in the order received.

Arrangements for an outstanding banquet, floor show, and dance are now being made by a committee headed by K. B. Thorndike. The committee plans to secure a top-flight dance band for the occasion.

Tickets for this event are $7, including tax and tips. They may be secured for $6 if purchased before Tuesday, March 5.

REMA members who have not done so are urged to use the hotel reservation postal cards sent them in December. Mr. Hanson said failure to use these special cards had resulted in unsatisfactory replies from the Stevens, which has set aside 550 rooms for the convention.

Members were also asked to use advance registration forms supplied them, so badges can be secured at REMA's registration desk on the third floor of the Stevens upon arrival.

Complete program for the convention was announced as follows:

MONDAY, MARCH 4

12:30 Noon—Product Section Luncheon, West ball room.

2:00 p.m.—Product Section meetings, private dining rooms 6, 8, 9, 10, 11, 12, 13, 16, 18, and 20

7:00 p.m.—Annual Board of Directors meeting, private dining room No. 4.

TUESDAY, MARCH 5

9:30 a.m.—Closed REMA membership meeting, North assembly room.

12:30 Noon—Joint luncheon of manufacturers and wholesalers, North ball room.

2:00 p.m. to 10:00 p.m.—Opening of conference booths, exhibition hall, lower lobby.

WEDNESDAY, MARCH 6

10:00 a.m. to 12:30 p.m.—Joint session of REMA and REWA, North ball room.

2:00 p.m. to 5:30 p.m.—Second day of conference booths, exhibition hall, lower lobby.

7:00 p.m. to 1:00 a.m.—Banquet, entertainment, outstanding floor show, dancing, Grand ball room. (Parties should be arranged in advance.)

THURSDAY, MARCH 7

10:00 a.m. to 4:00 p.m.—Final hours for booth conferences, exhibition hall, lower lobby.

Kelvinator Division Now Rema Member

CHICAGO—Kelvinator Division of Nash-Kelvinator Corp. has joined the Refrigeration Equipment Manufacturers Association, and was represented at the meeting of the Condensing Unit Section of Rema held here Jan. 26.

The Condensing Unit Section will next meet on March 4, at the time of the joint R.E.M.A.-R.E.W.A. meeting in Chicago. It is expected that the group may have the opportunity at that time to discuss the survey which OPA is making on the possible need for a blanket price increase on condensing units under 5 hp.

Other manufacturers represented at the meeting in Chicago included: Baker Ice Machine Co., Brunner Mfg. Co., Copeland Refrigeration Corp., Curtis Refrigerating Machine Co., General Electric Co., Lehigh Foundries, Inc., Lynch Mfg. Corp., Mills Industries, Inc., Servel, Inc., Tecumseh Products Co., Westinghouse Electric Corp., Eureka-Williams Corp., and Universal Cooler Corp.

Strikes--

(Concluded from Page 1, Column 5)

Mansfield, Ohio, last fall a union representative from New York was told that the Westinghouse warehouses were bulging with ranges," suspects Mr. Ashbaugh.

"The fact is that because no heating elements were available for the ranges we had crated the units, putting only two nails on the top of the crate, and stored them in the warehouse until such time as we had the heating elements. Our only thought was to provide employment. Actually it is much less economical to produce ranges this way, but we wanted to keep the workers employed," he explained.

Whether the recently announced wage pacts between the UAW-CIO and Ford and Chrysler will lead to quick settlement of the General Motors, steel, and electrical strikes remains to be seen. Charles E. Wilson, G-E president, has indicated, however, that G-E plans to negotiate only on the basis of rates within its company, and not on any so-called nationwide wage boost plan.

Plants which might be affected by the possible strike in the brass industry include American Brass Co., Chase Brass & Copper Co., Revere Copper & Brass, Inc., Wolverine Tube Co., Mueller Brass Co., Bridgeport Brass Co., and Scoville Mfg. Co.

Scoville, Chase, American, and Bridgeport will probably be hit first by the strike wave.

If the strike should occur, "it will be a struggle that will last some time," predicts Reid Robinson, president of the Internation Union of Mine, Mill & Smelter Workers, CIO.

"The decision to strike is part of a general wage fight which the CIO is making to keep take-home pay and living standards in the United States at a point where production and full employment can be maintained," he declared.

After Feb. 4 Mr. Robinson expects more than 65% of the country's brass manufacturing plants will be closed by strike.

* * *

50% of Vacuum Cleaner Parts Made of Steel

DETROIT—At least half of the numerous parts in vacuum cleaners are made entirely or partly of steel, according to George T. Stevens, manager of the Eureka Division of Eureka-Williams Corp. here.

Eureka is determining just how much its 40 suppliers can ship from stock and what is available in warehouses, he said.

PRECISION MAKES PROFITS . . . When you sell Servel*

"MIRROR-SMOOTH" FINISHING BRIGHTENS YOUR PROFIT PICTURE

It's no accident that Servel condensing units last longer, give trouble-free performance, and thus make extra profits for you. For one thing, every running surface is polished mirror-smooth by an extremely precise automatic honer.

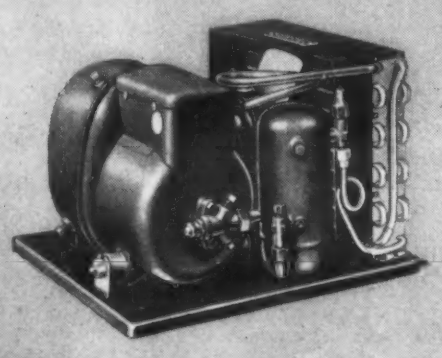
In the picture above, the Servel workman is using this machine to finish a connecting rod. The rod is accurately bored to precise tolerances on a diamond boring machine. Then the honer removes the last few fractions of a thousandth of an inch. Four fine hones within the spindle expand outward in a true cylinder until the exact predetermined size is reached. Then an electrical relay stops the operation automatically, and the rod is polished smooth—ready to give years of friction-free, trouble-free service.

Putting a mirror-smooth finish on running surfaces is only one of many scores of precisely gauged precautions taken during the manufacture of Servel Supermetic and other condensing units. These operations assure longer life for the unit, with fewer interruptions and lower overall operating costs. They build the kind of consumer acceptance that puts extra profits in the pockets of dealers and fixture manufacturers.

Find out today how accurately Servel Supermetic condensing units will meet your requirements. Write now for your free copy of Servel's new folder, "Servel Supermetic." Address Servel Inc., Div. RN, Evansville 20, Indiana.

*Servel's new "Supermetic" condensing units will serve dealers and fixture manufacturers in every vital field

1. STORE FIXTURES
2. MILK COOLERS
3. HOME LOCKERS
4. BEVERAGE COOLERS
5. VENDING MACHINES
6. ROOM COOLERS
7. FARM FREEZERS
8. WATER COOLERS
9. INDUSTRIAL COOLING
10. VEHICLE REFRIGERATION



Servel, Inc.
Electric Refrigeration Division, Evansville 20, Indiana

This is one in a series of advertisements featuring the scores of new machine tools and processes now being used to produce Servel Supermetics. Reprints are available to dealers individually or in sets as series progresses.

Takes Reins at Mills

H. J. HEDRICK

Who has been appointed manager of the Refrigeration Division of Mills Industries, Inc.

Nash-Kelvinator Had Loss For Quarter

DETROIT—Nash-Kelvinator Corp. reports a net loss for the three months ended Dec. 31, 1945, of $638,857. Loss for the quarter before tax adjustments amounted to $2,954,857, but the estimated recoveries due to the carryback features of the tax law amounted to $2,316,000.

This compares with a profit of $519,166 after taxes for the corresponding period of 1944 when the corporation's activity was devoted entirely to war production.

The current period, which constituted the first quarter of the corporation's fiscal year, covered the bulk of the reconversion problems and expenses, according to the statement. Plants were largely reconverted and rehabilitated and revamped for peacetime production. Introductory advertising has been completed.

Production of finished cars and refrigerators was under way in substantial volume by the end of the quarter, and during December, sales to dealers and distributors were being made in quantities which promised January deliveries to consumers.

The immediate future is clouded by difficulties and potential difficulties in securing material and parts, and normal operations cannot be expected until there is again a normal functioning of industry and a steady and reliable flow of material, the statement said.

Flint Firm Reestablished By Returning Veterans

FLINT, Mich.—With the return of two discharged Flint, Mich. soldiers, the Braden Distributing Co., wholesalers of houseware, electrical appliances, and lighting equipment, located at 101 Smith St., has resumed operation.

The men are Nathan D. Rosenbluth and Lawrence H. Ruffe, both former technicians fifth grade. The company has operated in Flint since 1935.

MEETINGS FOR THE INDUSTRY

Feb. 21-22, Thurs-Fri: National Association of Refrigerated Warehouses. The Edgewater Beach, Chicago.

Feb. 25-28, Mon-Thurs: National Assn. of Home Builders. The Stevens, Chicago.

March 4-7, Mon-Thurs: Spring REMA meeting, including joint sessions with REWA. The Stevens, Chicago.

March 17-18, Sun-Mon: Annual Interprovincial RSES Convention. King Edward Hotel, Toronto, Ontario, Canada.

March 27-31, Wed-Mon: 5th annual convention of the Frozen Food Institute. Park Ave. Armory, 34th St. at Park Ave., New York City.

April 2-4, Tues-Thurs: 12th annual sales conference of EEI. The Edgewater Beach, Chicago.

April 21-25, Sun-Thurs: 37th annual convention of NEWA. The Stevens, Chicago.

April 22-27, Mon-Sat: National Plastics Exposition and Convention of Society of the Plastics Industry. Grand Central Palace, New York City.

April 27-May 19: Products of Tomorrow Exposition. The Chicago Coliseum (on the south fringe of the Loop), Chicago.

Prices Set on 2 Lines For American Co.

MINNEAPOLIS—Two recent orders issued by OPA under MPR 591 include ceiling prices for four sizes of remote and self-contained beverage coolers and 16 sizes of walk-in coolers manufactured by American Refrigerator & Machine Co. here.

Following is the price schedule set by Order 214 for sales of the beverage coolers:

	On sales to—		
	Distributors	Dealers	Consumers
6 ft. dry beverage cooler—remote	$225	$270	$ 450
6 ft. dry beverage cooler—self-contained	330	396	660
8 ft. dry beverage cooler—remote	293	352	586
8 ft. dry beverage cooler—self-contained	392	470	784
10 ft. dry beverage cooler—remote	338	406	676
10 ft. dry beverage cooler—self-contained	498	598	996
12 ft. dry beverage cooler—remote	398	467	778
12 ft. dry beverage cooler—self-contained	539	649	1,078

Walk-in cooler prices were established as follows by Order 215:

	On sales to—		
Walk-In coolers	Distributors	Dealers	Consumers
6 x 6 x 8	$290	$348	$ 580
6 x 6 x 9	317	380	634
8 x 6 x 8	352	422	704
8 x 6 x 9	383	460	766
8 x 8 x 8	442	530	884
8 x 8 x 9	457	548	914
9 x 6 x 8	383	460	766
9 x 6 x 9	416	499	832
10 x 6 x 8	413	496	826
10 x 6 x 9	449	539	898
10 x 8 x 9	493	592	986
10 x 8 x 9	532	638	1,064
10 x 10 x 8	572	686	1,144
10 x 10 x 9	616	739	1,232
12 x 10 x 8	651	781	1,302
12 x 10 x 9	699	839	1,398

SpeedWay
No. 69, ¼" drill
$99.95
89-J, ½" drill
$132.50
SpeedWay announces that an even better and more complete line of SpeedWay Electric Tools will soon be available to you at the same attractive pre-war SpeedWay prices. Already coming off the line, these are tools worth waiting for. Ask your dealer about them NOW!
SPEEDWAY MFG. CO.
1849 S. 52nd Ave.
Cicero 50, Ill.

KEROTEST

Patented DIAPHRAGM PACKLESS

Valves

Embody the Latest Engineering Developments for the

★AIR CONDITIONING AND ★REFRIGERATION INDUSTRY

For dependable, safe control of household commercial or industrial Air Conditioning and Refrigeration products — *let Kerotest engineers work with you.*

KEROTEST MANUFACTURING CO.
PITTSBURGH, PA.

"Kerotest is one of just fifteen manufacturers to receive the Fifth Star and final award for their Maritime Flag."

2-Temperature Supermarkets Planned, With Air Conditioned Produce Section

By Jack Sweet

CHICAGO—As soon as building materials are available, construction will be started across the country on "Foodliners"—a new type of two-temperature super market with an air conditioned fresh and frozen foods section separated from the rest of the store by a plate glass partition.

Designed for its members by the Independent Grocers' Alliance of America, the Foodliner is called "one of the most revolutionary changes ever to be inaugurated in food retailing." Blueprints for this streamlined, self-service market, which IGA describes as its "challenge to the postwar competitive era," are being drawn up by W. H. Longenbaker.

The Foodliner accentuates "fresh" foods, particularly frozen foods, by grouping them in a separate low-temperature section at the rear of the store. Set off by the glass partition, this "fresh" section is devoted to the display of pre-packaged fruits and vegetables, meats, dairy products, and frozen foods, all in open cases for self-service.

REASONS FOR COOLING

According to IGA, the temperature and humidity of this room will be controlled "to give the ultimate in shopping comfort and to provide the best possible condition to keep the 'fresh' goods at their top flavor peak." J. Frank Grimes, president of IGA, believes this section eventually will be responsible for 75% of the Foodliner's volume.

One store is already in partial operation in Wisconsin Rapids, Mr. Longenbaker said. He declared that blueprints have been completed for several hundred of IGA's 5,000 independent store members throughout the country and that it is expected construction materials will be available in the near future.

Mr. Longenbaker said the Foodliners are being designed in four basic sizes: 25 by 90, 40 by 90, 50 by 100, and 60 by 120. These designs, he stated, are adaptable to both rural and metropolitan areas and will be used for already-existing stores as well as for new buildings.

The Foodliner was conceived to keep in step with the wide-spread acceptance of frozen foods and the need of more space for their retailing, according to Mr. Longenbaker. The use of a self-service system was prompted by the necessity for low operating expenses in order to permit low prices, he said.

"We decided to put the store on a streamline basis and let the customers do the work," he said, in explaining that the only clerk service is at specialty counters operated in conjunction with the check-out section.

Describing the basic floor plan of the Foodliner, Mr. Longenbaker said the general layout of the "fresh" room follows this pattern:

Along the left wall are refrigerated display cases for fresh frozen fruits and vegetables and for dairy products. In the center is a case containing fresh frozen fish and desserts.

On the right side, pre-packaged fruits and vegetables are displayed. In back of this counter is a receiving room, a sink for washing the foods, and a pre-packaging room.

The cases for display of pre-packaged, fresh frozen meats are located across the rear of the section. Separated from the cases by a partition are aging, processing, and holding rooms in which the meat is prepared for display.

TO SEE MEAT PROCESSING

Meat in primal cuts is first brought into the aging room. Next, it goes to the processing room where the butchers work in full view of patrons who may watch them through a Thermopane glass window.

Here, the meat is cut into consumer-sized pieces, packaged, and dropped into freezing wells. When frozen, the meat is then placed in the display cases or stored in the holding room.

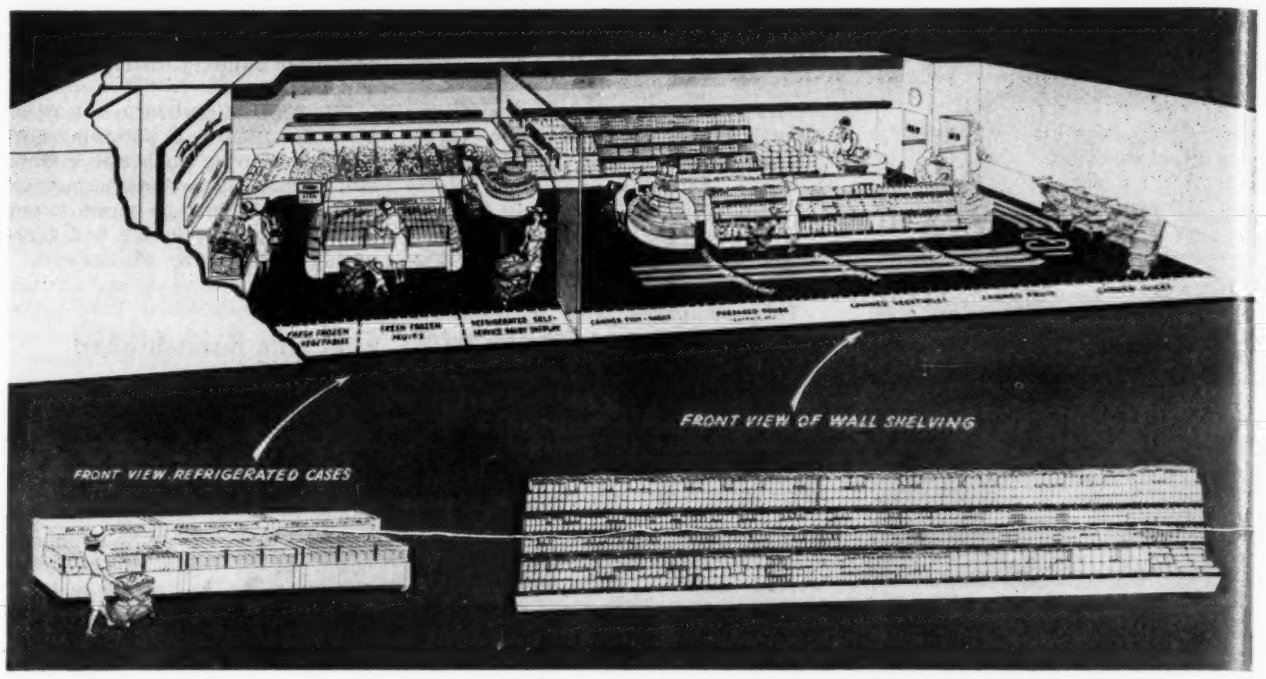
Movement between the two sections of the store is through a 5-foot passageway in the plate glass partition.

In the other section of the Foodliner, which also may be air conditioned, canned goods and prepared foods are distributed along the left side. The center area is given over to counters for drugs, tobacco products, cosmetics, cookies, crackers, pastries, and candy.

Along the right side of the store are bakery foods, paper products, soap, cleaning and baking supplies, etc.

IGA's entry into the frozen food field also was marked by the introduction of a new line of frozen products under the brand name, "Orchid." At first comprised only of fruits and vegetables, the line was to be expanded to include practically all foods.

Design for Supermarket With Air Conditioned Section for Perishables



This artist's drawing of the proposed "Foodliner" supermarket designed for members of the Independent Grocer's Alliance shows the general idea of the store—with the front section devoted to canned goods and dry staples, and the rear separate air-conditioned section for perishable foods. Sketches at bottom show detail of shelving and open refrigerated display.

McCary Plans Separate Service, Sales Buildings

EL PASO, Tex.—Completion of an expansion program involving construction of a separate building to house its service department and remodeling of its original building for use only in sales was recently announced by McCary Appliance Store here.

A. T. McCary said the firm is now prepared to handle both sales and service of refrigeration equipment for factories not represented in this territory.

Operating as McCary Refrigerator Service, the repair department is located in the new building at the intersection of Mobile and Piedras Sts. where the company purchased four lots. Sales of new home appliances will be concentrated in the remodeled building at 2716 N. Piedras.

According to Mr. McCary, the firm has been in the refrigeration sales and service business for 25 years. Mr. McCary was formerly associated with Kelvinator Division of Nash-Kelvinator Corp. and served as a field engineer for Brunswick-Balke-Collender Co. for several years.

Commercial sales will be under the direction of R. O. Pennington, formerly with Kelvinator's commercial refrigeration department. Mr. Pennington was recently discharged from the Sea-Bees after three years' service in the Pacific and in this country as a refrigerator service instructor.

Bert Prall Named V.P. Of Dayton Rubber Co.

DAYTON, Ohio — Bert R. Prall, former vice president and general manager of operations of Montgomery Ward & Co., has been named executive vice president of The Dayton Rubber Mfg. Co., announces A. L. Freedlander, president and general manager of the company.

"In a rapidly growing business such as ours, all departments sooner or later need enlargement and Mr. Prall's full rounded general business and large organization experience fits in with the company's steady progress over the years and will aid in the general management of the business," Mr. Freedlander stated.

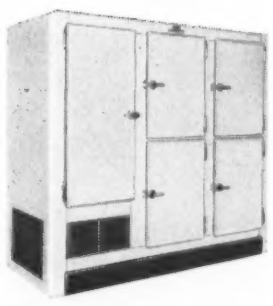
The office of chairman of the board will be left vacant, and those duties will continue to be combined with the office of Mr. Freedlander, who is chief executive officer and general manager of the company.

Mitchell Refrigeration Set Up in Vancouver

VANCOUVER, B. C., Canada—George E. Mitchell Refrigeration, Ltd., has been incorporated under the B. C. Companies Act to engage in all branches of the refrigeration business. The firm has $75,000 authorized capitalization and has its offices c/o Messrs. Robertson, Douglas, and Symes, Bank of Montreal building, 640 West Pender St., Vancouver, B. C.

there's no escaping

the fact that we are unable to meet the overwhelming demand for Koch Refrigerators. We hope and expect to increase our output all through 1946. We do guarantee that what refrigerators we do produce will be the very finest we can manufacture.



KOCH refrigerators

ESTABLISHED 1883 NORTH KANSAS CITY, MISSOURI

STANGARD Prime Surface COLD PLATES For Maximum Refrigerating Efficiency

THE STANGARD-DICKERSON CORPORATION
46-76 Oliver Street • Newark 5, N. J.
STANGARD KNOWS REFRIGERATION

Copyright 1945 by The Stangard Dickerson Corporation

Home Freezer Prices

Victor Products

HAGERSTOWN, Md. — OPA has fixed a retail ceiling price of $570 for an 18-cu. ft. farm and home freezer manufactured by Victor Products Corp. here.

The price is listed in Order 222 (MPR 591), which also includes ceilings on sales of the freezer to and by Firestone Tire & Rubber Co. and by resellers purchasing from Firestone.

Maximum prices for sales by any person except Firestone and resellers buying from Firestone were set as follows:

Model and size	On sales to distributors and the Firestone Tire & Rubber Co.	On sales to dealers	On sales to consumers
Q 4518: 18 cu. ft. with ⅓-hp. condensing unit	$285	$342	$570

For sales by Firestone and its reseller customers, OPA established the following prices, including delivery and crating:

Model	On sales to— Class A Firestone dealer	Class B Firestone dealer	Class C Firestone dealer	Consumer
Q 4518: 18 cu. ft. with ⅓ hp. condensing unit	$339.70	$376.25	$430	$570

The 'Freezall' Chest Type

BLOOMINGTON, Ill. — Portable Elevator Mfg. Co.'s 6-cu. ft. Freez-All chest-type home freezer will retail at $250 under the provisions of Order 219 recently announced by OPA.

Maximum prices for sales of the freezer were established as follows under MPR 591:

Freez-All Model No. 60 chest type food storage cabinet, 6-cu. ft. ½-hp. condensing unit:	
On Sales to consumers	$250
On Sales to stocking dealers:	
(a) Annual sales volume of 10 or less	167
(b) Annual sales volume of 11 to 25	156
(c) Annual sales volume of 25 units	150
On sales to nonstocking dealers	175
On sales to distributors	125

Harris & Sowers

DECATUR, Ill.—Maximum prices for two models of farm and home freezers manufactured by Harris & Sowers here have been established by Order 216 recently issued by OPA under MPR 591.

The price schedule follows:

Model	On sales to— Distributors	Dealers	Consumers
No. 14—14 cu. ft. ¼ hp. Condensing unit	$213	$256	$426
No. 21—21 cu. ft. ⅓ hp. Condensing unit	280	336	560

Schaefer's Pak-A-Way Retails At $225

MINNEAPOLIS—A 6-cu. ft. home freezer manufactured by Schaefer, Inc., here under the brand name, Pak-A-Way, will retail at $225, according to Order 221 recently issued by OPA.

If purchased by consumers under a five-year warranty plan, the same model will retail at $230.

Following are the ceiling prices established for the freezer:

	On sales to— Distributors	Dealers	Consumers
Pak-A-Way home freezer: 6 cu. ft. ⅓ hp. condensing unit	$127.50	$150	$225
Pak-A-Way home freezer: 6 cu. ft. ⅓ hp. condensing unit with 5-year warranty plan	132.50	155	230

Taylor Instrument Files To Sell Stock Issue

ROCHESTER, N. Y.—A registration statement involving the proposed sale of 30,750 shares of common stock, $20 par, has been filed with the Securities & Exchange Commission by Taylor Instrument Co., manufacturer of air conditioning and refrigeration controls.

Subject to clearance by SEC, it was anticipated that 21,170 shares, representing treasury stock, would be offered publicly the latter part of January. First Boston Corp. was named as principal underwriter.

Long-term employes, including officers, will be offered the remaining 9,580 shares, owned by the estate of the late Herbert J. Winn, former chairman of Taylor. These shares will be obtainable at $18 each in accordance with the terms of Mr. Winn's will.

Proceeds from the sale will be added to working capital funds. Late last year, stockholders voted to split the outstanding stock five-for-one.

Snyder, Mathews Named By Birds Eye-Snider

DETROIT—A. E. Snyder has been appointed sales manager of the western division for Birds Eye-Snider, Inc., and Martin Mathews has been named sales manager for the southern division of the organization, it is announced by Austin S. Igleheart, president, General Foods Corp.

Mr. Snyder has been with Birds Eye-Snider since 1938, at which time he joined the company as a retail salesman. Most recently he has been district sales manager in San Francisco.

Mr. Mathews has been with the Birds Eye-Snider organization since 1927, at which time he was employed as branch salesman. A short time later, he became branch manager in New York. Following that, he was appointed successively supervisor for the northern New York district, southern district, mid-west district, and in 1944 he returned to New York in the capacity of branch manager of Q-F Wholesalers, Inc., a subsidiary of Birds Eye-Snider.

G-E Buys Plant From RFC In Allentown

BRIDGEPORT, Conn. — General Electric Co. has purchased a plant in Allentown, Pa., from the Reconstruction Finance Corp., in which electrical appliances will be manufactured.

The plant was utilized during the war by Consolidated Vultee Aircraft Corp.

It is reported that more than 300 persons will be employed in this plant by General Electric.

O'Hara Refrigeration To Handle G-E Commercial

BUFFALO—O'Hara Refrigeration Service here recently has been appointed distributor for General Electric commercial refrigeration and air conditioning products in Erie, Niagara, Orleans, Genesee, Wyoming, and Cattaraugus counties in Western New York, according to an announcement just made by George O'Hara, Jr.

MANUFACTURING FACILITIES AIR CONDITIONING:

Want to contact small firm to make up room coolers for sales organization. Write Box 1912, Air Conditioning and Refrigeration News

Certified

BY A QUARTER CENTURY OF REFRIGERATION KNOW-HOW

Plan your automatic refrigeration installations for a triple advantage: Proved performance, low first cost, low maintenance cost. LIPMAN machines for dependable service in any field of commercial refrigeration are the result of more than a quarter century of manufacturing know-how. Let LIPMAN serve your needs profitably!

GENERAL REFRIGERATION DIVISION

CHOICE OF EXPERIENCED Refrigeration Men EVERYWHERE

"DETROIT" EXPANSION VALVES

Satisfactory, trouble-free service which "Detroit" Refrigeration Valves have given throughout the industry—in the widest range of installations—have brought them to the highest standing in the minds of experienced refrigeration men.

They know that "Detroit" Valves will do the job and assure the success of the installation.

"DETROIT" DURA-FRAM EXPANSION VALVES

These valves offer a combination of features not to be found in other makes of valves, and which are of extreme value in efficient, satisfactory refrigeration.

GAS CHARGED POWER ELEMENTS prevent motor overload — have maximum sensitivity—provide quicker balancing of system with no flood-backs and no lag in pull down. Power elements are charged with a fixed, carefully controlled amount of gas. As a result, the valve remains closed until suction pressure is reduced to a predetermined value. Then the valve opens and keeps the coil working at maximum efficiency. Gas charging is an important "Detroit" feature.

COMPLETE LINE includes automatic and thermostatic valves, adjustable and non-adjustable types—capacities up to 20 tons of Freon.

SINGLE DIAPHRAGM CONSTRUCTION making valve smaller, more compact.

SPECIAL ALLOY DIAPHRAGMS amazingly durable, reliable and uniform in operation.

DELUBALOY NEEDLES AND SEATS—Years of constant service have proved reliability, durability, and corrosion resistance.

SPECIAL BODY CONSTRUCTION long tested and highly satisfactory. Power element joints are silver brazed, preventing refrigerant loss under any contingency.

PRE-COOLED HIGH SIDE LIQUID—In larger sizes, liquid is pre-cooled before reaching orifice. This reduces the volume of entrained gas and produces a denser stream through the orifice with improved balance in the system.

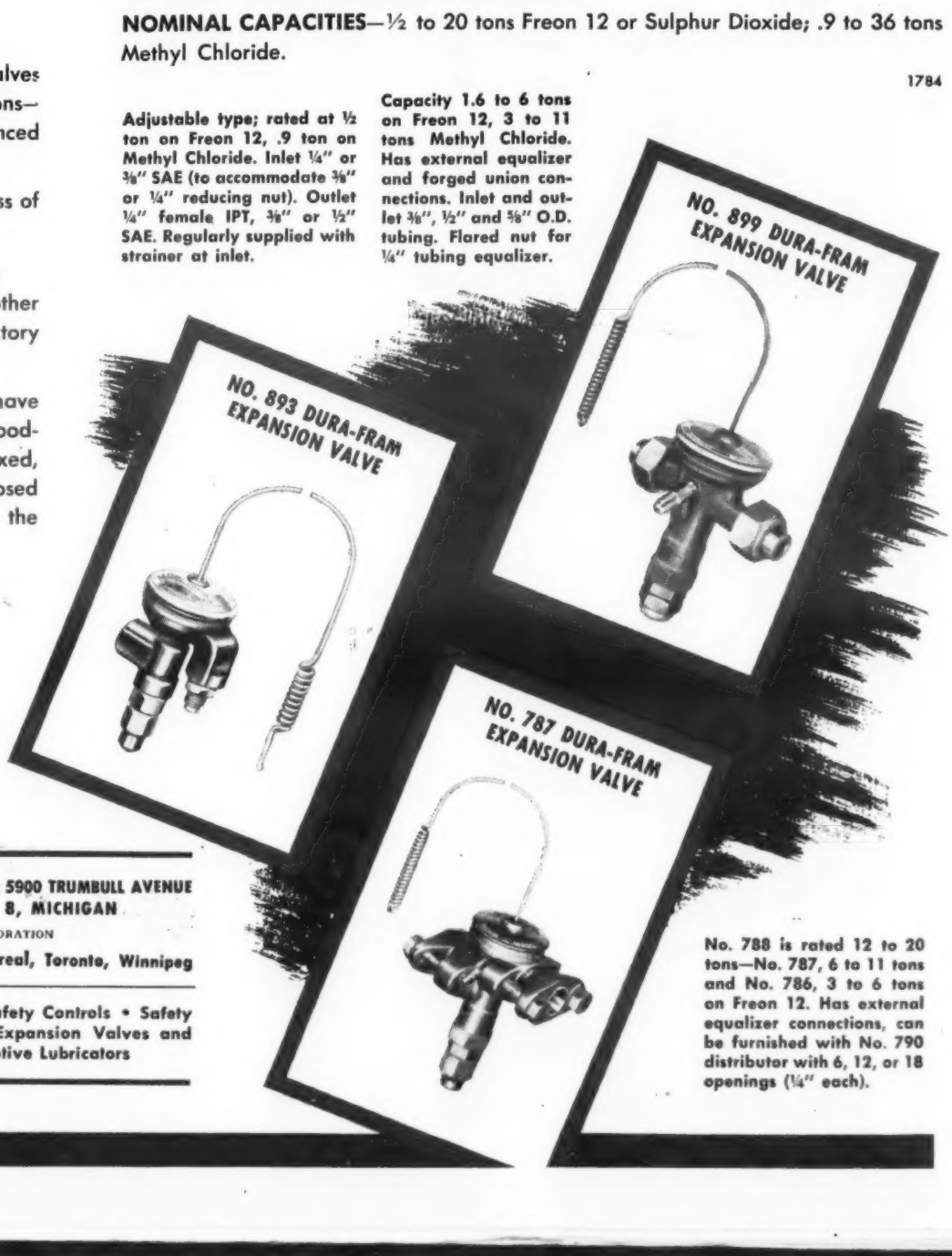
FLEXIBILITY—Capacities of larger valves easily changed in the field merely by changing selective capacitors or seat assembly.

NOMINAL CAPACITIES—½ to 20 tons Freon 12 or Sulphur Dioxide; .9 to 36 tons Methyl Chloride.

1784

Adjustable type; rated at ½ ton on Freon 12, .9 ton on Methyl Chloride. Inlet ¼" or ⅜" SAE (to accommodate ⅜" or ¼" reducing nut). Outlet ¼" female IPT, ⅜" or ½" SAE. Regularly supplied with strainer at inlet.

Capacity 1.6 to 6 tons on Freon 12, 3 to 11 tons Methyl Chloride. Has external equalizer and forged union connections. Inlet and outlet ⅜", ½" and ⅝" O.D. tubing. Flared nut for ¼" tubing equalizer.



No. 788 is rated 12 to 20 tons—No. 787, 6 to 11 tons and No. 786, 3 to 6 tons on Freon 12. Has external equalizer connections, can be furnished with No. 790 distributor with 6, 12, or 18 openings (¼" each).

DETROIT LUBRICATOR COMPANY General Offices: 5900 TRUMBULL AVENUE DETROIT 8, MICHIGAN

Division of AMERICAN RADIATOR & Standard Sanitary CORPORATION

Canadian Representatives: Railway and Engineering Specialties Limited, Montreal, Toronto, Winnipeg

"DETROIT"

"Detroit" Heating and Refrigeration Controls • Engine Safety Controls • Safety Float Valves and Oil Burner Accessories • "Detroit" Expansion Valves and Refrigeration Accessories • Stationary and Locomotive Lubricators

Inside Dope

By George F. Taubeneck

(Concluded from Page 1, Column 1)

throughout the area, the "bomb-proof" at all times knew the movements of every boat and plane in its district.

Officers, seated in a balcony overlooking the filter room, looked down on a map of the region. Plotters constantly shifted markers showing the direction, speed, and other pertinent data on all surface and aircraft.

The men who supplied this vital information to the "bomb-proof" belonged to an aircraft-warning regiment. This developed from the tiny band at Station 1, and grew into one of the most smoothly operated AW outfits in the Army.

These men spent endless, dreary months in isolated jungle outposts, interminably staring into their "scopes" for pips that meant there was a plane or a boat "out there." And these jungle-happy G.I.'s stared the Big Ditch into security while battling the dangerous malaria-causing mosquito, the maddening microscopic sand flies, jungle rot, and morbid loneliness.

And That's Another Story

While the boys who pioneered the development of this radar chain had a rough time of it, some of those who came to the land of the "Blue Moon Queens" later on were able to work in air conditioned buildings, and eat food kept fresh by walk-in and reach-in electric refrigerators.

The construction of this air conditioning and refrigeration equipment, taken on boats and planes to these remote jungle camps and carted up steep jungle trails by "cats," is a story in itself.

Maybe we can get Mr. Sweet to tell it.

Art Scaife Suggests: 'Keep It Simple'

Speaking before more than 400 of Detroit's top advertising men at the Adcraft Club Luncheon last Friday, Art Scaife, advertising and sales promotion manager of General Electric's Appliance and Merchandising Department, let loose a clear and emphatic explanation of why and how you can keep your sales story simple.

People are skeptical, Art declares. The public is hostile to too smooth, too clever, too pat presentation. And so our distribution system must key its selling appeals to simple, forthright language and display.

Only in this way, emphasized the G. E. executive, can we produce steady, continued mass sales so as to rationalize mass production.

Mr. Scaife introduced his subject with a story of the farmer who, when offered a new $5 complete encyclopedia on agriculture—including the background, description, and analysis of everything a farmer could possibly need to know, answered:

"Hell NO, I'm not farming half as good as I know how right now."

We need to do the simple things, said Mr. Scaife, FULLY as well as we know how.

Distributors Need To Get the Facts

Manufacturers and distributors need to stop guessing about what will sell in the field. They need to go and find out. They need to produce FEWER and better sales aids. They need to bring back from the field information on what the retailer needs in the way of advertising and sales aids, to produce such aids, and then to follow through and see that the sales aids are actually used instead of piled on a back shelf.

The G. E. Appliance Advertising Manager has no use for what he terms "swivel chair promotion."

With the vastly increased tempo of living, with ever more demands on the time and attention of buyers, with more competition for more wage dollars, the importance of effective, uncomplicated, easy-to-understand display is continually increasing. The best ideas usually come from the field, from salesmen in daily contact with the consumer. And ideas, sales tools, demonstration gadgets produced in the home office —to be good—must "look as though they were thought up by someone who is doing the actual selling to users."

Mr. Scaife warned against sales tools which embarrass the salesman, which make him feel as though he should be an actor or an orator to use them. And he warned against putting too much into a single demonstration or display, leading to confusion and failure to get across any central idea.

And in closing he told of the great opportunities of coming new products, illustrating his point with sample balls of the recently developed bouncing putty made from sand.

He called for strong, sales-tested to-the-point promotion to get the most selling facts across in the least time, and thus to match mass production with continued mass selling.

Buffalo Dealers Planning Expansion In Spite of Gloomy Supply Picture

BUFFALO—Delivery of refrigerators to Buffalo area retailers is on a hand-to-mouth basis and dealers report it will be some time after the strikes are settled before merchandise is available in any volume.

Meanwhile, several large dealers are going ahead with plans to expand their electrical appliance departments. Victor & Co., furniture department store, has been remodeling its appliance department and will be ready for a much larger volume of business when stocks improve.

Sattler's department store plans to triple the size of its electrical appliance department in its new building expansion program now underway.

But right now dealers are selling units as fast as they come in. One dealer uses the following method: he places his sample on display with a card showing the number of units of that model available in stock. When all units are sold another card is put up showing the model to be out of stock.

Some makes of refrigerators seem to be appearing in better volume than others, one dealer reported. Some customers appear disposed to wait for "new models" to come in—with special interest being shown in additional frozen food storage space.

One store is making a concerted effort to see to it that ex-servicemen get first call on appliances—especially those who have just been married. "Their situation is pretty desperate," remarked the dealer, "and we give them a break whenever we can."

Ward Will Head Up Wesco Peoria Branch

PEORIA, Ill.—Henry Czech, manager of the northwestern district of the Westinghouse Electric Supply Co., has announced the appointment of Clarence G. Ward as manager of the Peoria branch.

Mr. Ward joined the Peoria branch of Wesco in 1928, serving as office manager and as apparatus and supply salesman before assuming his present duties.

Head of Expanding Firm

HENRI SADACCA

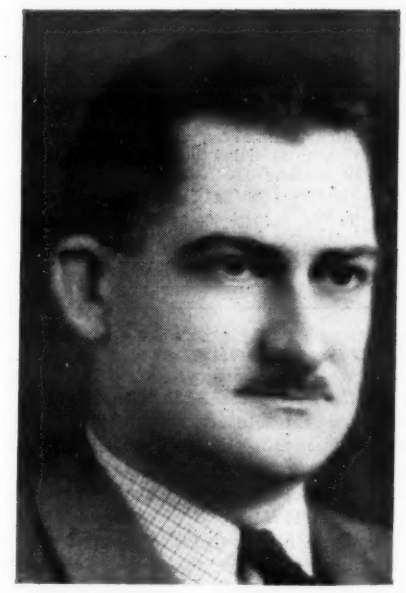
President of Noma Electric Corp., which recently purchased Refrigeration Corp. of America (see story in Jan. 28 issue of the News).

Erskine Caldwell, Author Part Owner of Phoenix Appliance Dealership

PHOENIX, Ariz.—Arizona-Phoenix Electric Co. is a new appliance dealership here.

Partners of the new firm are J. Frank Johnson, John J. Barkley, and Erskine Caldwell, well-known author. Although still writing, Mr. Caldwell will take an active part in the business, it was announced.

Directs New Firm's Affairs



ROBERT J. ALCORN

Executive vice president of The Heat-X-Changer Co., Brewster, N. Y., which is manufacturing a new cast aluminum liquid cooling low side, and which will also produce heavy duty floor-type unit coolers.

WE MAKE SEAMLESS COPPER AND BRASS TUBING AND FABRICATE IT TO *Your* REQUIRED SPECIFICATIONS

When you think of seamless copper and brass tubing—think of Wolverine and the vast range of quality products as shown herein.

You may be sure that, while prompt deliveries may not be possible at present on some items, our every effort will be directed toward fulfillment of your orders.

WHO'S WHO AMONG WOLVERINE REPRESENTATIVES

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Serves your needs in California and Arizona

WOLVERINE TUBE DIVISION

CALUMET & HECLA CONSOLIDATED COPPER COMPANY

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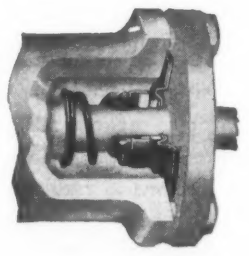

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OPA Sets Prices on Malleable Steel's Electric Ranges

WASHINGTON, D. C.—Maximum prices for sales of six models of electric ranges manufactured by Round Oak Co., of Dowagiac, Mich., were recently approved by OPA in Order 241, MPR 64.

A second order, number 242, fixed ceiling prices to be used by Malleable Steel Range Mfg. Co., of South Bend, Ind., for sales of the Round Oak models it purchases.

For sales of the Round Oak brand by the manufacturer to the Malleable Steel Range company and to retail dealers, the top prices are as follows, according to Order 241:

Model	Malleable Steel Range Mfg. Co. Each	Retail dealers in quantities of— 1 to 9 Each	10 to 24 Each	25 or more Each
92-9	$86.80	$104.16	$ 98.95	$93.74
92-9C	88.20	105.84	100.55	95.26
92-9W	89.60	107.52	102.14	96.77
92-9CW	92.40	110.88	105.33	99.79
91-9	72.52	87.02	82.67	78.32
91-9C	75.32	90.38	85.86	81.34

Substituting "wholesale distributors" for "Malleable Steel Range Mfg. Co.," the above schedule is otherwise the same as that contained in Order 242 for sales by Malleable (under the Malleable brand) to wholesale distributors and retail dealers. Both sets of prices, f.o.b. Dowagiac, are subject to price differentials at least as favorable as those in effect on sales of the same models to the same class of purchasers between Jan. 15 and June 1, 1941, by Malleable.

Retail ceiling for both brands are as follows:

Model	Zone 1 Each	Zone 2 Each	Zone 3 Each	Zone 4 Each
92-9	$173.95	$177.95	$182.50	$186.25
92-9C	176.75	180.95	185.25	189.25
92-9W	179.50	183.75	187.95	191.95
92-9CW	185.25	189.25	193.75	197.50
91-9	145.50	149.50	153.95	157.75
91-9C	151.00	155.25	159.50	163.50

Included in these prices are the Federal excise tax, delivery, a one-year warranty, and installation when only connection to electrical facilities is required. The dealer is allowed to add $3.50 to the ceiling prices if a range cord set is required and furnished.

For sales of the Malleable brand by wholesale distributors to retail dealers, the following ceilings were established by Order 242:

Model	Zone 1 — 1 to 4 Each	Zone 1 — 5 or more Each	Zone 2 — 1 to 4 Each	Zone 2 — 5 or more Each
92-9	$111.23	$107.13	$112.86	$109.65
92-9C	113.02	108.85	115.65	111.37
92-9W	114.79	110.55	117.44	113.10
92-9CW	118.47	114.10	120.92	116.45
91-9	92.98	89.55	95.48	91.95
91-9C	96.51	92.95	99.16	95.50
	Zone 3		Zone 4	
92-9	$116.57	$112.26	$118.92	$114.51
92-9C	118.33	113.95	120.83	116.35
92-9W	120.07	115.62	122.57	118.02
92-9CW	123.78	119.20	126.13	121.45
91-9	98.26	94.62	100.64	96.90
91-9C	101.82	98.05	104.32	100.45

Appliance Mfg. Co. Washer Prices Set

ALLIANCE, Ohio — Approval of ceiling prices for sales of two models of washing machines manufactured by The Appliance Mfg. Co. here was recently given by OPA.

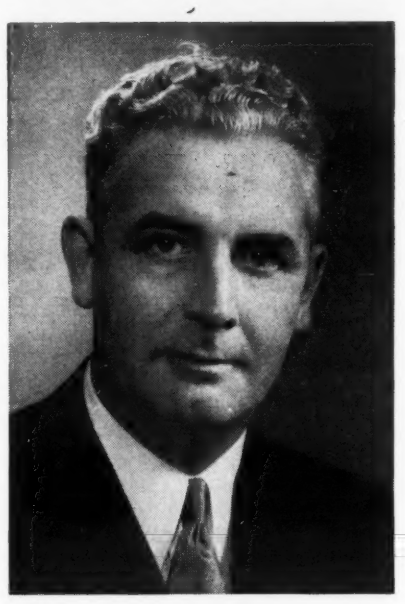
Order 37, MPR 86, established the following maximum retail prices for the models:

Model	Zone 1 Each	Zone 2 Each	Zone 3 Each
6K	$69.95	$74.95	$79.95
K8	89.95	94.95	99.95

Distributors are instructed that their ceiling prices for sales to dealers are to be determined in accordance with Section 15 of MPR 86.

Addition of $5 is allowed if a water pump is provided at the purchaser's request.

On Bendix Sales Staff



H. A. HALL

* * *

Al Hall Is Bendix Division Sales Chief

SOUTH BEND, Ind.—H. A. (Al) Hall has been appointed divisional sales manager for Bendix Home Appliances, Inc., with headquarters in Minneapolis, according to W. F. Linville, sales manager. The division includes Wisconsin, Minnesota, Iowa, Nebraska, and the Dakotas.

Mr. Hall has been part of the Bendix picture almost since its inception, having started as a "factory distributor" specialist, training dealers and salespeople in the southern California territory.

He also pioneered in electric refrigeration, starting March 1, 1926, as a retail salesman for the I. K. Stover Co., then Chicago distributor of Frigidaire. He advanced to district manager.

Later, Mr. Hall was regional field merchandiser for Montgomery Ward's west coast stores, handling all major appliances and radios. More recently he was midwest regional manager for Adel Precision Products Corp., Burbank, Calif.

Donovan Is Appliance Manager of Southwest Drug Co. Chain

DALLAS, Tex.—Joe B. Donovan, formerly with Southwest Household Appliance Associates in many Texas cities, has been named general sales manager for the new Raco Appliance Co., wholesale sales division of Southwestern Drug Corp. here.

The new appliance corporation, which will cover most of Texas, will utilize established drug offices at Dallas, with branches in Amarillo, Fort Worth, Waco, Houston, San Antonio, and Odessa. Lines handled will include Youngstown complete kitchens, Conlon washers and ironers, GE traffic appliances, Manning-Bowman traffic appliances, Viking products, and Bastian-Blessing products.

Fred M. Truett, president of the Southwestern Drug Corp., will likewise head up the Raco Appliance division, while Buford Penland has been appointed vice president and F. M. Marsh as controller-treasurer.

Mr. Donovan entered the appliance field with Cities Service appliance divisions in New York City, and transferred to Texas six years ago. He has made arrangements for the new firm's first dealer campaign meeting in Dallas early in February.

Welker Supply Is New Mich.-Ohio Distributor

DETROIT — Incorporation of the Welker Supply Co., which will distribute five major appliance lines in lower Michigan and northwestern Ohio, was announced recently as having taken effect Jan. 1.

Branch houses will be opened in Grand Rapids, Mich., and Toledo, announced President E. H. Welker, who is also president of the Welker Machinery Co. here and the Ultra Lap Machine Co. Other officers include: Judge Ernest P. LeJoie, vice president; and Frank J. Brady, secretary-treasurer and general manager.

Welker Supply Co. is located at 846 W. McNichols Road here.

OPA Fixes Prices on Savage Arms Washer

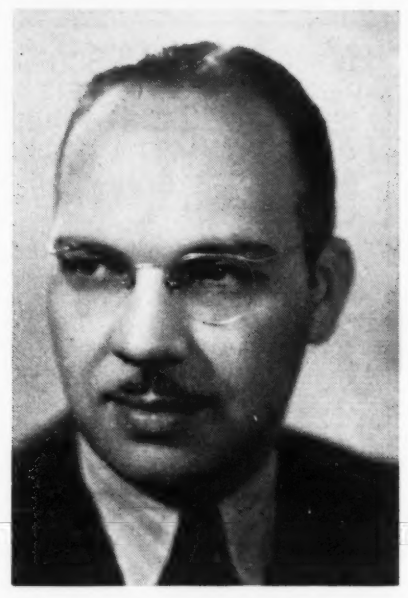
CHICOPEE FALLS, Mass.—Retail ceiling prices for the Savage Arms Co. Model W.A. washing machine have been fixed at the following levels by Order 27, MPR 86; $139.50 in Zone 1, $144.50 in Zone 2, and $149.50 in Zone 3.

For sales by distributors to dealers, the maximum prices for Model W.A. are; in Zone 1, $87.80; in Zone 2, $90.95; and in Zone 3, $94.10.

The above prices are f.o.b. seller's city, but in all other respects they are subject to the seller's customary terms, discounts, allowances, and other price differentials in effect on sales of similar articles.

To Contact Trade For Detroit Wholesaler

FRANK A. HENRY, JR.



A. J. MATTES

* * *

Mattes and Henry Join J. M. Oberc Organization

DETROIT—A. J. (Al) Mattes and Frank A. Henry, Jr., have joined the Monitor Division of J. M. Oberc, Inc., here as special sales representatives on the Monitor line of home appliances, it is announced by J. M. Oberc, president.

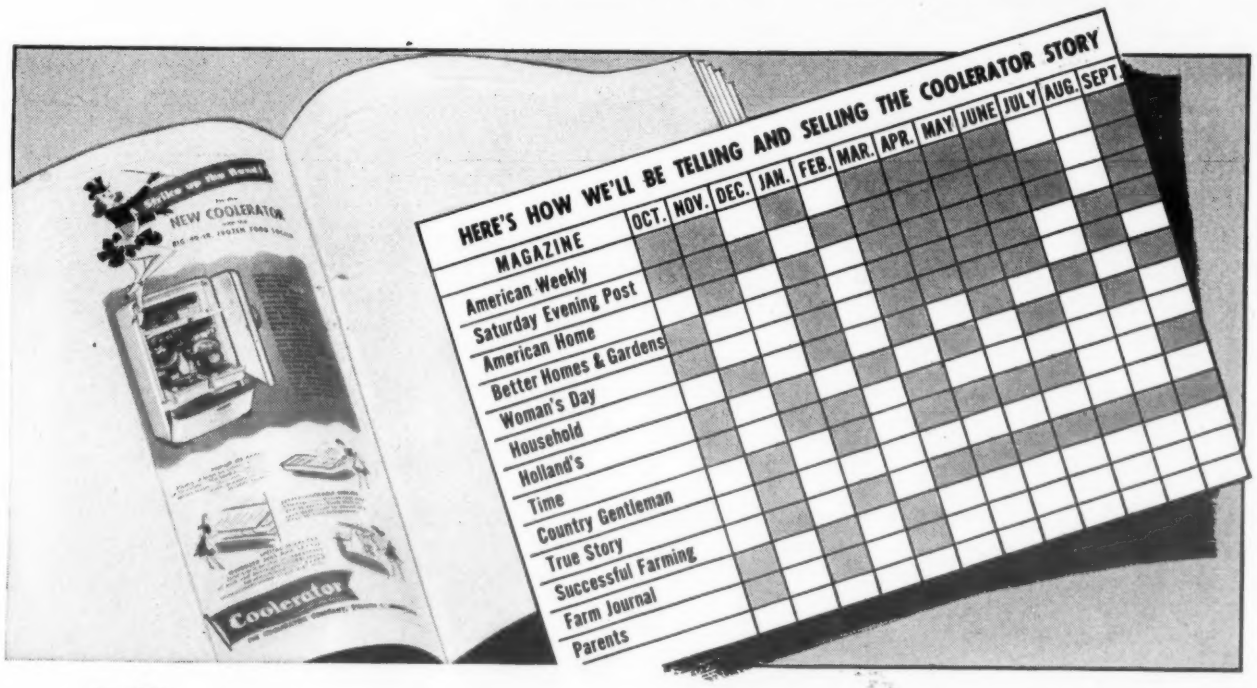
Before joining the Oberc organization Mr. Mattes was with Universal Cooler Corp. for 10 years, the last five as national service manager. Prior to that he had been with Chrysler Corp. and Saginaw Malleable Iron Works. He is a graduate of the University of Pittsburgh in electrical engineering.

Mr. Henry for a number of years operated a retail appliance business in Flint, Mich. During the war he was Washington representative for a machine tool company. He was at one time employed by Detroit Radio Laboratories in a consulting capacity. He is a graduate of City College of Detroit.

Both men will be active in establishing and maintaining contact with dealers.

Coolerator Advertising Parade

To Reach 220,000,000 Consumer Circulation



12 national magazines tell dramatic COOLERATOR Story!

Here's Coolerator's continuous advertising and merchandising campaign designed to reach the great medium price sales market with the fullest impact. Dramatic, colorful ads will tell your customers the many advantages of Coolerator products . . . the big, 7-color Coolerator display will act as an extra salesman in your store! Remember, America's largest sole specialist in home refrigeration has a liberal trade policy designed to bring substantial profits to your business!

DEALERS! Order this life-size Coolerator Display from your Distributor —it's a WOW!

Coolerator

THE COOLERATOR CO., DULUTH 1, MINN.

Proven by Performance

IDEAL Speed-Freeze PRODUCTS

FROZEN FOOD CABINETS • BEVERAGE COOLERS

IDEAL COOLER CO., 2953 EASTON, ST. LOUIS 6, MO.

They'll Do It Every Time . . . . By Jimmy Hatlo

NEEDLENOSE Mc SOUP, PERSONNEL MANAGER, DECIDED HE MUST HAVE A LARGE, PRIVATE OFFICE WHERE HE COULD CONCENTRATE —
AND I WANT FOUR PHONES -- A LOT OF BUZZERS AND I WANT IT SOUND-PROOFED! EVERY-THING FOR PRIVACY... Y'UNNERSTAN'?
N.Mc SOUP MANAGER
AND NOW WHERE DOES HE SPEND ALL OF HIS TIME? YOU GUESSED IT RIGHT OVER YOUR SHOULDER MAKING LIFE MISERABLE, AS USUAL —
COME COME, GRINDSTONE -- THAT ISN'T THE WAY. I'VE TAUGHT YOU BETTER THAN THAT! MISS REMINGWOOD -- A LITTLE MORE SPEED PUL-LEASE!
Thanks to C. COOPER GAMBER, PHILADELPHIA, PA
N.Mc SOUP MANAGER
JIMMY HATLO
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FOR EVERY NEED

Mueller Brass Co. Strainers and Filters are manufactured throughout with non-ferrous metal, and have a polished natural metal finish. All tubular types are fabricated from brass or copper pipe with forged brass outlets soldered in place. Other types are made from brass forgings.

All Filters and Strainers are designed to insure efficient passage for the maximum refrigerant volume that is generally used in any particular size refrigerant line. The range is exceptionally complete — one for every specific purpose.

Write for literature on A-13661 Line Filter — inexpensive and with a maximum efficiency.

Order through your jobber.

MUELLER BRASS CO.

PORT HURON, MICHIGAN

Trade Mark registered U. S. Patent Office; Est. 1926

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AIR CONDITIONING AND REFRIGERATION News

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VOLUME 47, NO. 5, SERIAL NO. 881, FEBRUARY 4, 1946

Let's Look at Our Debt Picture

AS the second World War was drawing to a close, the combined debt of all the 155 thousand governmental units—Federal, State, and local—stood at $275 billion. Compared with the summer of 1940, when American rearmament began, the increase is $212 billion, or 336%

Of the 1945 total, Federal debt accounted for nearly $259 billion, State debt for $2.4 billion, and local debt for $14.2 billion.

The total governmental debt of $275 billion in 1945 was 436% of the $63 billion debt outstanding for all Federal, State, and local governments in 1940.

The growth in national income, although phenominal during the war, has not been in an amount or at a rate to equal the debt rise.

The spread between national income and public debt has been widening at an accelerated rate since 1942, when total debt was but 76% of an estimated national income. By 1945, total public debt was 75% larger than the national income of $157 billion estimated (preliminary) by the Bureau of Foreign and Domestic Commerce.

The financial burden of preparing for, and conducting, a global war fell upon the Federal Government. As a result, the movement of Federal debt dominated the changing pattern of total governmental debt.

While Federal revenue rose from $5 billion in 1940 to $46 billion in 1945, expenditure increased from $9 billion to $100 billion during the same period. War activities accounted for 50% of total expenditure in 1941 and for 90% in 1945. Revenue paid for 42% of total Federal expenditure from 1941 through 1945, in contrast to about 30% in the first World War. Borrowings paid for 58% of Federal expenditure during the second World War, resulting in the $216 billion rise in Federal debt since 1940.

The movement of State and local governmental debt has been in the opposite direction from that of Federal Government debt. The former decreased $3.6 billion, or 18% since 1940. The decrease from 1944 to 1945 was 5%.

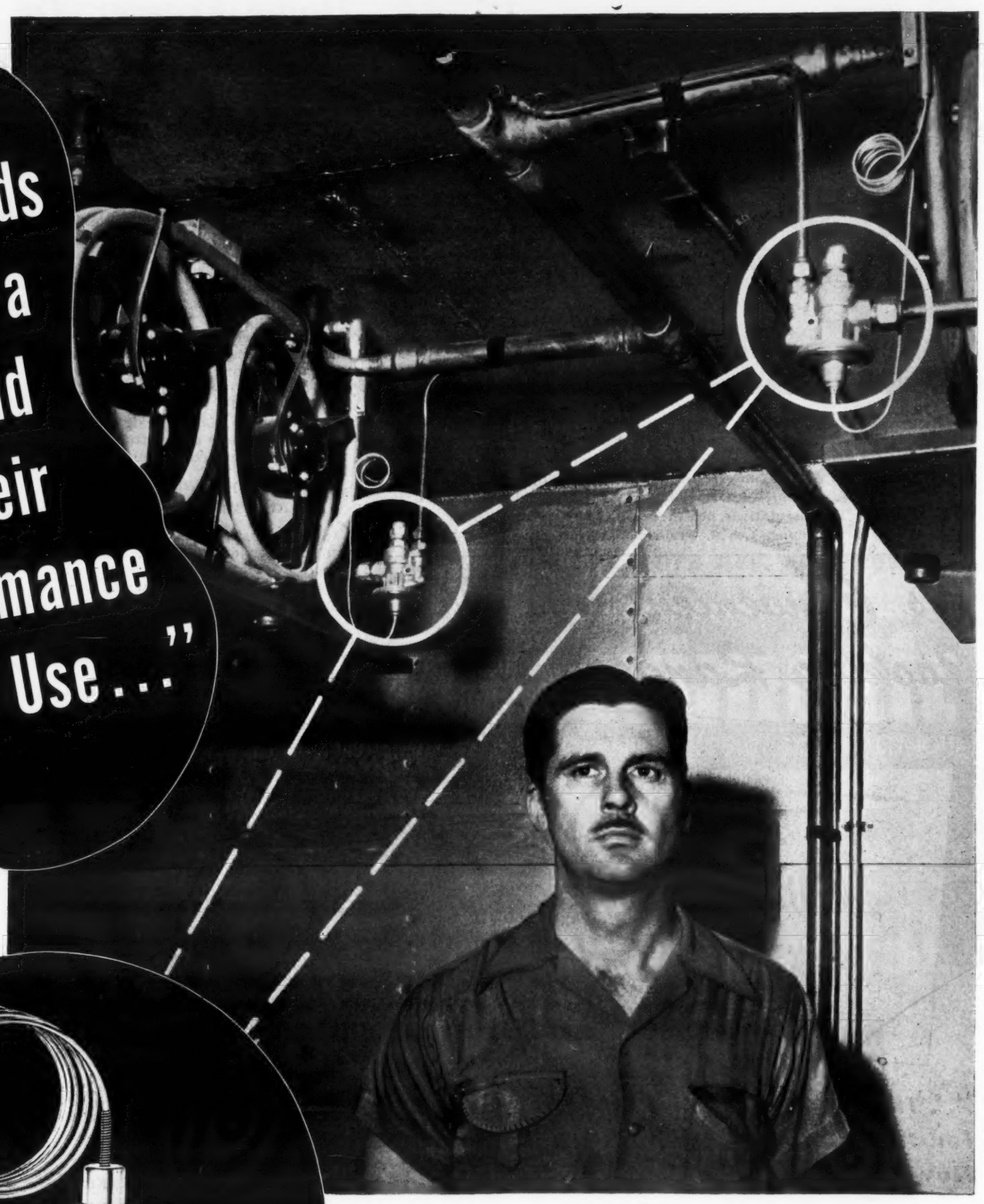
During the war all State governments reduced their debts, some by substantial amounts. Local governments have also been reducing their debts, but at a lower rate.

Limited opportunity for capital expenditure, resulting from war restrictions, and steadily increasing revenue—especially of the States—in the wake of expanding economic activity and rising national income, account for the substantial and continuous contraction of State and local governmental debt during the war years.

There isn't much we can say about these facts. About all we can do is shudder. But it is important that they be summarized, so that all of us can look at the facts and *face the music.*

We'll all have to work harder and longer to pay up what we owe.

"We Have Used Hundreds of A-P Valves over a Period of years—and Highly Regard their Dependable Performance and Flexibility of Use..."



J. L. FISH
Central Electric Co.
Davenport, Iowa

A-P No. 205 Thermostatic Expansion Valve

CENTRAL ELECTRIC CO.
421-23 W. Fourth St., Davenport, Iowa

Automatic Products Co.
2450 N. 32nd Street
Milwaukee, Wis.

Gentlemen:

The enclosed photograph shows a section of a large walk-in cooler which we constructed at the Davenport Produce Co. There are two more blower coils, or four in all, each of which is equipped with "A-P" No. 205 Thermostatic Expansion Valve. The 5 H.P condensing unit uses an "A-P" Water Regulating Valve.

We have used hundreds of Automatic Product Company valves over a period of years, and have a high regard for their dependable performance and flexibility of application.

Very truly yours,
CENTRAL ELECTRIC CO.
J. L. Fish

A-P THERMOSTATIC EXPANSION VALVES..

. . . are considered basic equipment by leading refrigeration engineers when building large walk-in coolers like this installation for the Davenport Produce Co. "A-P" Refrigeration Valves are designed and engineered for flexibility of application and continuously dependable operation. As a result service engineers and customers alike, freely express approval and endorsement. Living up to this universal confidence is the constant aim of the entire A-P organization.

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Export Department — 13 E. 40th Street, New York 16, N. Y.

DEPENDABLE *Refrigerant Valves*

Stocked and Sold by Good Refrigeration Jobbers Everywhere — Recommended and Installed by Leading Refrigeration Service Engineers

Kold-Hold Mfg. Co. recently called in its field representatives for a meeting in Lansing, Mich., to discuss 1946 field sales plans. Executives and field representatives in conference here include: (standing left to right) L. R. Burr, J. R. Tranter. (Seated) C. H. Reynolds, R. D. Spitler, H. C. Hoover, E. A. Thiele, A. L. Golay, F. E. Heidrich, T. O. Lester, J. C. Jackson. Representatives not in the picture included C. K. Davis, L. F. Young, Leo J. Freitas, and H. S. Ryan.

Home Freezer To Replace Can Opener for the New Bride?

Radio Interview Depicts Advantages to Housewife

NEW YORK CITY—"I don't know whether that perennial joke about the importance of the can opener for brides will be replaced with one about home freezers, but certainly they will open up a new world of convenience and economy, as well as a more healthful standard of living," stated John M. Bess, president of the Refrigeration Corp. of America, who was interviewed on the present and future of frozen foods by Nancy Craig on the program, "The Woman of Tomorrow," over Station WJZ here.

In answer to Nancy Craig's query as to the economy of the frozen food cabinet, Mr. Bess continued:

HOW THE ECONOMY 'STORY' BECOMES A FACT

"In the first place, the housewife can buy her quick frozen foods in season at the lowest market price for use at any time she wants during the year.

"For those who have large gardens, fresh foods can be quick frozen almost immediately after harvesting. Another economy for those who are buying frozen foods lies in the fact that instead of buying a small 12 ounce size, the homemaker can purchase a two to five pound package at substantial savings, use what she wants, and leave the balance in the freezer.

ICE CREAM BY THE GALLON

"Take ice cream, for example. Now one buys a quart or so at a time, but with a home freezer, they can buy it in one to five gallon cans and have it available at any time," said Mr. Bess.

"Cake can also be kept on reserve. In our home when Mrs. Bess bakes a large cake and doesn't use it all up at once, she puts part of it in the freezer, and it keeps absolutely fresh."

The future homemaker can do her cooking in large quantities at her convenience and always have the makings of a delicious meal available in a half hour's time or less, he stated.

SUNDAY 'FROZEN' DINNER

"One Sunday we had some unexpected visitors, and it was the maids' day out. Mrs. Bess was able to get together a complete Sunday dinner from her frozen foods in the freezer.

"For an appetizer we had fresh crab meat cocktail which my wife had purchased during the season and put away. Then we had some of her famous pea soup. The hamburger roast that was served had already been cooked and quick frozen. With this there were some delicious Ford Hook lima beans and carrots from our garden which had been quick frozen at the end of the season. Dessert was chocolate cake which had been made several weeks before and stored in the freezer."

Frozen foods are considered the big thing today, especially for the woman who goes to business and then comes home and prepares meals, or the woman who hesitates to leave home for a protracted period because of the family food problem, added Nancy Craig.

MENU BOOK PLANNED

"We are preparing a menu book showing a variety of meals over a period of time, indicating where a woman can take a day and prepare all kinds of food in quantities, then quick freeze it and have it ready for use for many weeks to come," announced Mr. Bess.

The acuteness of the household servant problem has been one reason women have become more conscious of the value of frozen foods and the convenience they represent. "Since our individual home freezers have been put on the market, we have been completely swamped with orders."

In reply to Nancy Craig's inquiry as to size and capacity of a home freezer, Mr. Bess disclosed that models are being made for every size home, even for the small apartment.

"The smallest model at present," he informed her, "has 6 cu. ft. of storage space, and will accommodate 250 to 300 pounds of food. Next year we are bringing out a new model for the modern kitchen where the surface is a flat table top, thereby giving additional working space so necessary in a small kitchen. Sizes of the 1946 models vary from 4 cu. ft. to 20 cu. ft., depending on the requirements of the family," Mr. Bess added.

FROZEN FOOD CENTERS

Self-service stores dealing exclusively in frozen produce was the concluding topic discussed by Mr. Bess on the program. He told of the opening of a chain of 30 frozen food centers, having for sale over 75 items. Each day the varieties were changed somewhat. Women are able to buy enough supplies for their freezers for as long a time as they wish, he said.

Some frozen food centers even have a barter system worked out, whereby women trade foodstuffs back and forth, Mr. Bess explained.

In conclusion Nancy Craig voiced her belief that the home freezer will be recognized as an integral part of every household in America, for "it is a device that will preserve abundance and keep abundance well distributed."

Restaurant Association Chief Sees 'Revolution' Through Frozen Foods

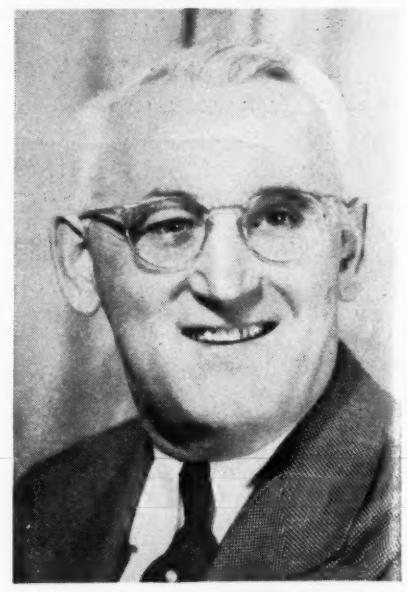
TORONTO, Ont., Canada—A prediction that quick-frozen foods will help revolutionize the restaurant industry within the next few years was made recently in Toronto by G. R. Le Sauvage, New York, president of the National Restaurant Association.

In a speech at the second annual meeting of the Canadian Restaurant Association, Mr. Le Sauvage said that recently he had eaten tea biscuits, rolls, bread, custard pie, and other foods which had been prepared two months previously and had been quick frozen.

He also cited the case of one United States restaurant operator who had baked and quick frozen 800 mince pies for the Thanksgiving Day rush.

"There will be some 'bugs' in the new processes; some won't understand them; others will try to discredit them," he said, "but they are coming now."

In New Capacity



R. E. NAGLER

Who has joined the Bob White Organization of Chicago, food industry consultants, as a specialist in retail frozen food distribution.

* * *

Nagler Will Direct Sales & Promotion For Bob White Firm

CHICAGO—R. E. Nagler, veteran leader in Midwestern food business and one of the pioneers of the frozen food industry, has joined the Bob White Organization, Chicago, food industry consultants, as a specialist in retail frozen food distribution.

Mr. Nagler comes to the White organization direct from his post as vice president of Freezer Foods, Inc. Among other projects, he pioneered exclusive retail frozen food stores, including the Hubbard Woods Development.

Mr. Nagler has addressed such groups as the American Meat Institute, the American National Live Stock Association, the American Marketing Association, the National Frozen Food Locker Association, and various associations and chambers of commerce. He is a former executive of the Jewel Tea Co.

With the Bob White organization Mr. Nagler will supervise consultation service and sales in the frozen food field. He will direct sales and promotion in the White organization's frozen food program, which will include distribution of both frozen foods and of home and retail store freezers and the design and installation of frozen food stores and equipment for retail distributors.

As Convenient As The Cooking Range...

...This BEN-HUR Farm & Home Freezer for the Livable Kitchens of New Homes Now Building

FOREMOST Architects, contractors, and home magazine editors are recommending home plans with first floor utility rooms or modern kitchens equipped with food-saving HOME FREEZERS. Thus home-frozen foods will bring better living to added thousands of American homes. Up-to-date home planning demands the convenience and satisfaction of a BEN-HUR Farm and Home Freezer in utility room, kitchen, or basement.

Here are the "Stand-Out" Features of the Quality-Built BEN-HUR . . .

★ ALL STEEL CONSTRUCTION
★ LIFETIME TESTED
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★ SIZE FOR EVERY FAMILY
★ THICK INSULATION (Hermetically Sealed)
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★ INSULATED AGAINST POWER FAILURE

BEN-HUR DEALERS are in direct line to *profit* by today's widespread popular demand for dependable Freezers. There is a size unit for every family need—city or farm. A BEN-HUR Dealership will increase your customer-prestige and your profits. Write regarding franchises still available.

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- DELIVERY AFTER JUNE, 1946

Refrigeration Problems
And Their Solution

By P. B. Reed

For Service and Installation Engineers

Manager, Refrigeration and Air Conditioning Division, Perfex Corp.

Automatic Expansion Valves (Part 1)

In the early days of mechanical refrigeration an ordinary hand valve was used to control the flow of liquid refrigerant into the evaporator coils. The hand valve, called an "expansion valve" because the refrigerant started to expand in passing through the valve, had to be constantly watched by the operating engineer, who readjusted it as the load changed and in accordance with temperature requirements. This method is still common with large installations having an operating engineer in attendance.

With the trend toward the smaller machines, operating automatically without constant or frequent attention and adjustment by an operator, the need arose for an expansion valve that would be, to some extent at least, self-adjusting to compensate for changes in load or temperature, and would shut off entirely if the compressor was stopped either by hand or by another automatic control actuated by temperature.

CONSTANT PRESSURE EXPANSION VALVE

Thus the so-called "automatic" expansion valve came into being. The name "automatic" is not very specific nor descriptive of its function. The thermostatic expansion valve (also mis-named, for it is more properly a "constant superheat" expansion valve) is also automatic; so are the float valves.

In reality the "automatic" expansion valve should more descriptively be called a "constant pressure" expansion valve, for its function is to control and restrict the flow of liquid refrigerant into the evaporator in such manner as to maintain a constant pressure of the refrigerant in the evaporator, even with wide variations in the superheating, and to shut off the liquid as soon as the compressor stops.

This type of valve is simple in design and simple in operation. A schematic diagram of a typical automatic expansion valve is shown in Fig. 1. The operation is as follows:

HOW IT OPERATES

The liquid line from the receiver is connected to the inlet connection, and liquid fills the "high pressure" space. Since the liquid refrigerant is under condensing pressure, it flows up between the valve needle and the valve seat into the low pressure space under the diaphragm.

The needle and the orifice in the seat are so sized and the distance of the valve to the seat is so adjusted that the flow of refrigerant is restricted; therefore, there is a large pressure drop through the orifice, and as a result the liquid starts to boil as it passes through the space underneath the diaphragm and out of the valve to the evaporator.

SPRING PRESSURE OPENS VALVE, REFRIGERANT PRESSURE IN EVAPORATOR CLOSES IT

The pressure to which the refrigerant is reduced in the valve may be adjusted to whatever is required by adjusting the screw in the top of the valve. The refrigerant pressure in the valve body underneath the diaphragm tends to lift the diaphragm. This pulls the valve closer to its seat, thus further restricting the flow of refrigerant through the orifice with the result that the low pressure is somewhat reduced.

SPRING PRESSURE AND SUCTION PRESSURE IN BALANCE

Offsetting this action is the adjusting spring, which at all times tries to push the valve off its seat. The amount of pressure exerted by this spring may be varied by means of the adjusting screw. Turning downward on the screw increases the pressure exerted by the spring on the diaphragm, tends to push the needle off its seat, and to let more liquid through the orifice into the low pressure portion of the valve body and into the evaporator.

More liquid in the evaporator feeds liquid farther into the evaporator and strikes a warmer part of the evaporator. This raises the pressure in the evaporator and in the valve body, and this increase of pressure tends to raise the diaphragm carrying with it the needle, and this again starts to close the valve against its seat.

In addition to the spring pressure, tending to open the valve, is atmospheric pressure above the diaphragm which also tends to open the valve. Opposing these is the pressure in the evaporator and the pressure of the high pressure liquid, both tending to close the valve. Since the atmospheric pressure remains practically constant, and the pressure of the liquid on the needle is comparatively small, the pressure maintained in the evaporator can be adjusted by adjusting the spring pressure by means of the adjusting screw.

In this manner the diaphragm is held in balance between the spring and atmospheric pressure above the diaphragm and evaporator pressure below the diaphragm.

IN OPERATION THE NEEDLE 'FLOATS' ABOVE THE SEAT

In actual operation there is practically a balanced condition, for the valve movement is quite small. The needle is held suspended just far enough off its seat to allow the passage of enough refrigerant to keep the evaporator pressure constant. Any tendency toward variation in evaporator pressure is immediately compensated by the needle moving a little farther from or nearer to the seat.

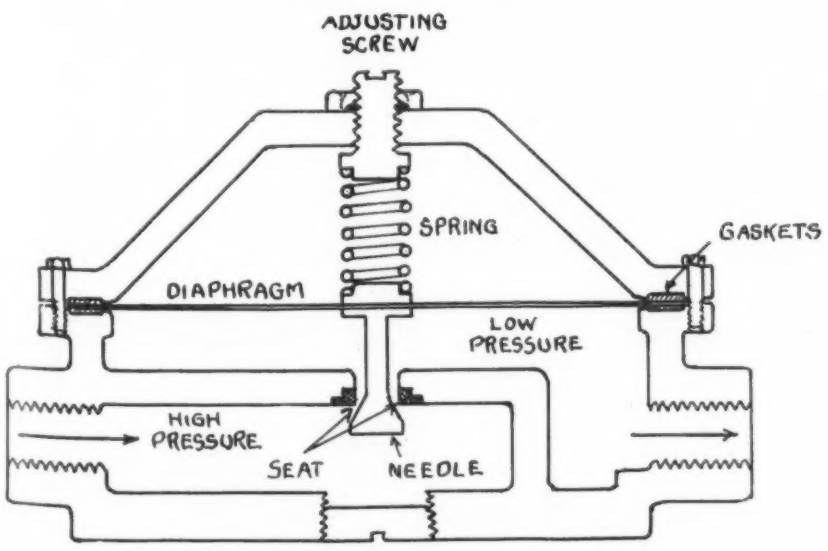
If the compressor stops, evaporator pressure builds up quickly, overcoming the pressure of the spring and atmospheric pressure and the valve closes, to remain closed until the compressor starts again and the evaporator pressure is brought down to the valve setting, when the valve gradually opens just enough to maintain the evaporator pressure constant at whatever the valve is set at.

PRESSURE RISES DURING OFF CYCLE, EVEN WITH VALVE CLOSED

While the compressor is not running, the evaporator pressure gradually increases, for the evaporator gradually warms up and the refrigerant in the evaporator rises in pressure along with its temperature. The longer the compressor stays off, the warmer the evaporator will get and the higher the evaporator pressure will rise, but it will be quickly reduced to the pressure for which the expansion valve is set as soon as the compressor again starts to operate.

(To Be Continued)

Fig. 1 Schematic Diagram of Typical Automatic Expansion Valve



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for
"V" BELT DRIVES

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FORGED FLARE NUTS AND FITTINGS
Complete Stock Prompt Shipment
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15,000,000 MICROMOTORS

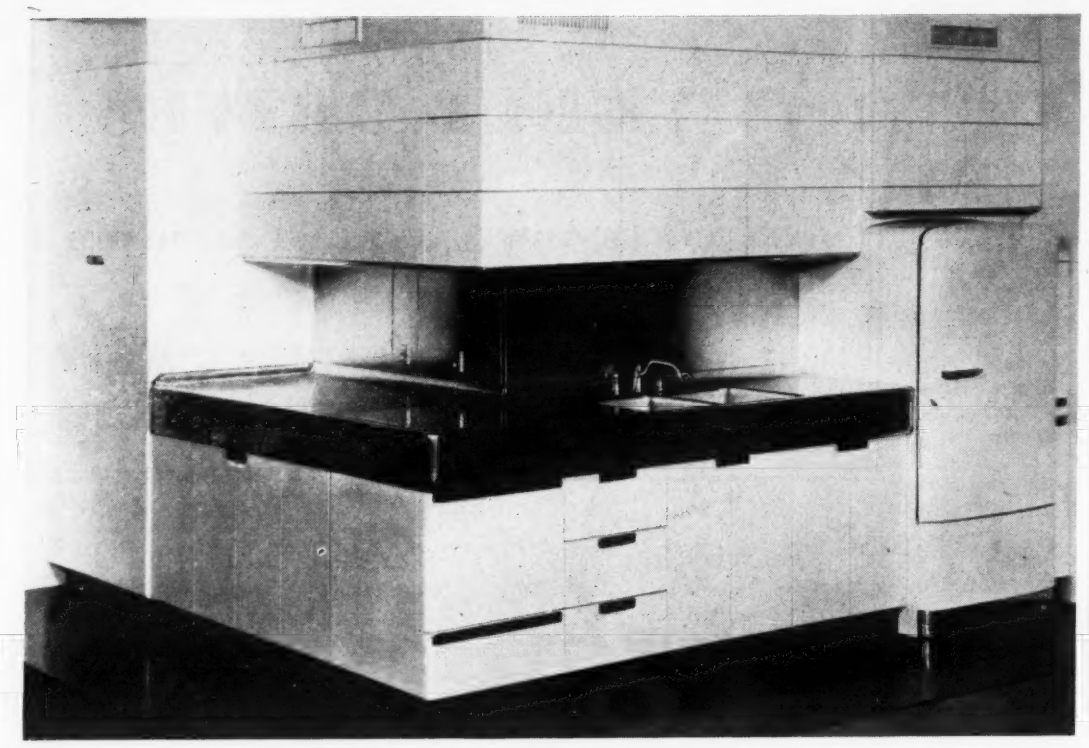
Expansion at Redmond's to answer the "call" has been a necessary routine for years. Today the combined Redmond motor manufacturing facilities include more than five acres of floor area and 2000 employees. A total in excess of 15,000,000 precision-built Micromotors has been produced.

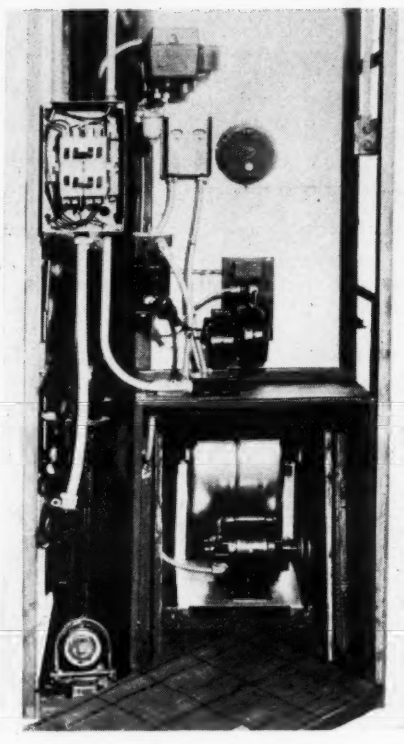
A.C. Micromotors in sizes up to 1/25th horsepower, D.C. Micromotors up to 1/20th horsepower, Speed Controllers and Blowers

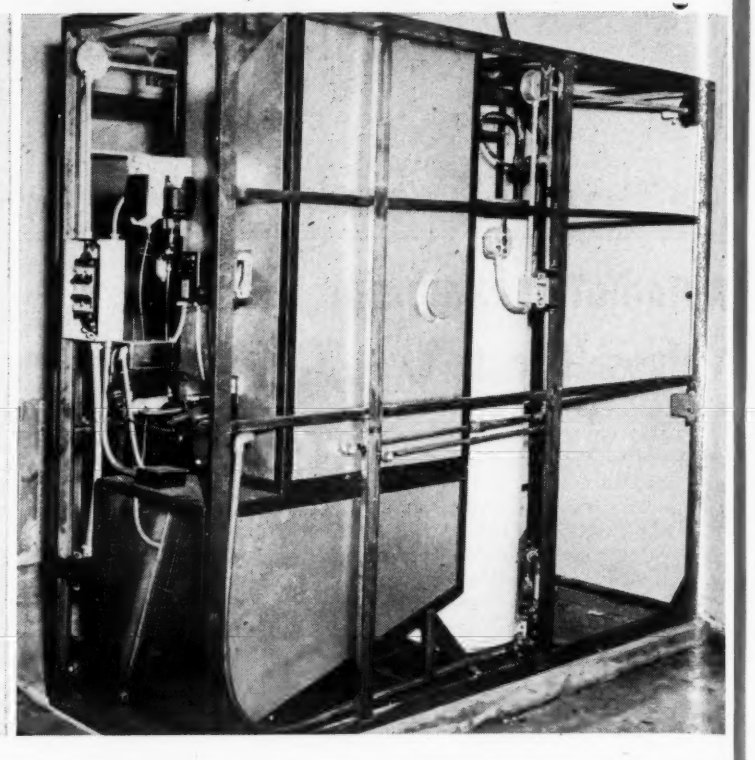
Redmond COMPANY, INC.
OWOSSO, MICH., U.S.A.

REDMOND

'Central Utility Unit' Combines Heating, Plumbing and Kitchen Elements





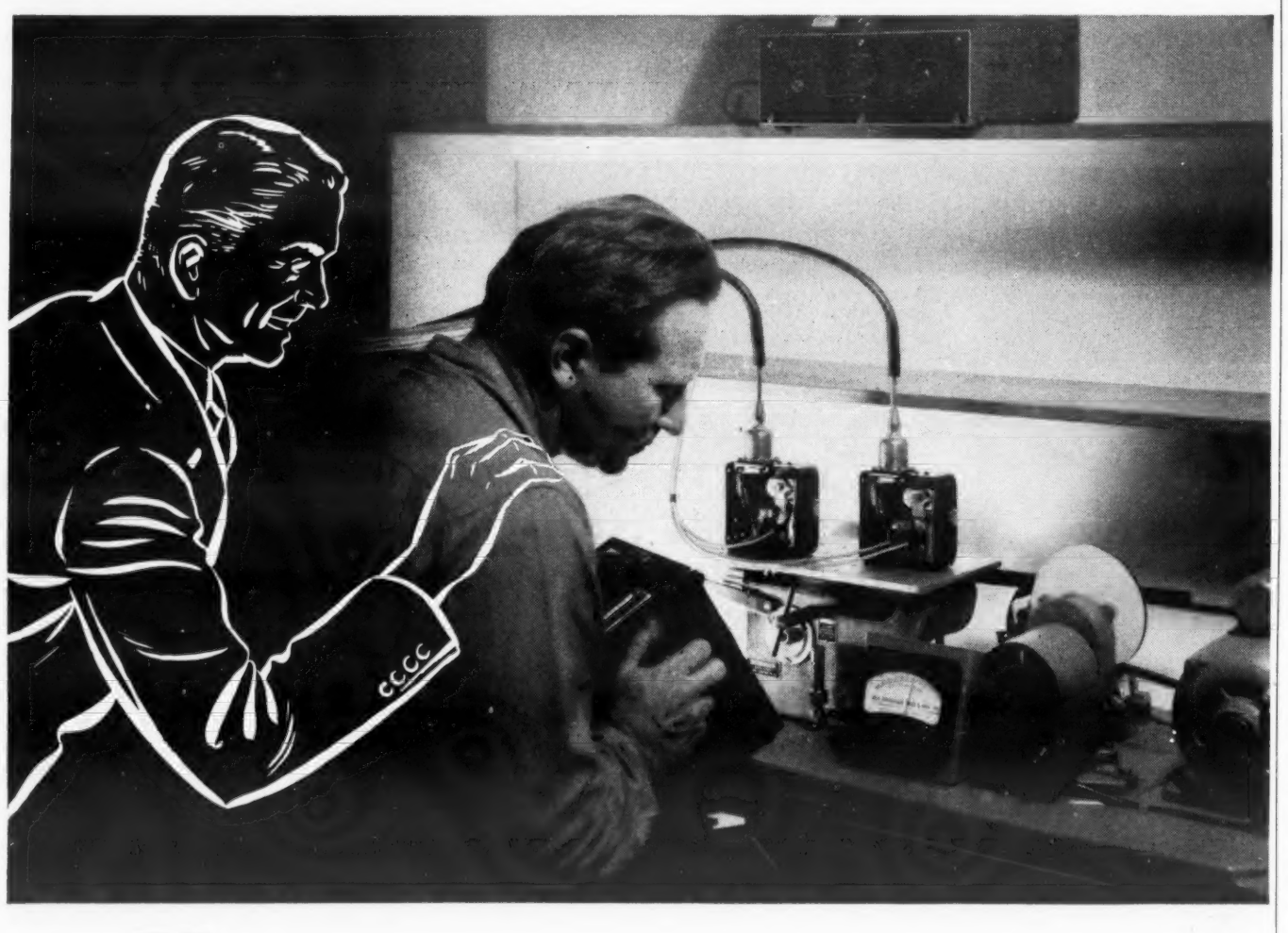


The mechanical core of the utility unit developed for small homes by the Ingersoll Steel Division, Borg-Warner Corp. (shown in the two photos at right) contains a forced warm air furnace (gas or oil); an automatic hot water heater (gas or electric); all plumbing, vents, and stacks; chimney connections; electrical connections; and electrical "boxes."

In the view at left are the kitchen and laundry equipment centers as built around the central core. At extreme left is the multi-use cabinet for ironing and cleaning equipment. This space may be fitted with a door to the bathroom, instead, if desired. Concealed under the black top work counter next to the cabinet is the laundry equipment.

At the corner of the counters is a four-burner range, either electric or gas. This is covered by a sliding stove top which provides additional work surface. Next to the range is sink and more work surface, with the 7-ft. refrigerator in the corner.

Center photo shows the laundry end of the mechanical core. Note furnace, blower, filter, drain pipe connections, and wiring outlets. Photo at right shows the kitchen side of the central unit. Behind the furnace can be seen the automatic water heater.



Ingersoll Division of Borg-Warner Builds Package Assembly For New Residences

CHICAGO — A "central utility unit" for new homes which consolidates household heating, plumbing, electrical, bath, kitchen, and laundry elements including major appliances, has been developed by the Ingersoll Division, Borg-Warner Corp.

This new utility unit is engineered for assembly-line production, and is adaptable to both conventionally built houses and pre-fabricated houses ranging in price from $3,000 to $10,000.

"We do not anticipate being able to go into the market to sell the builder of a single house, but we expect to let the ultimate buyer know that the unit opens the hope for a new realm of housing," declared Roy C. Ingersoll, president of the Ingersoll division.

"It is more than likely that the present capacity of production will limit distribution to builders working in large scale housing."

Mr. Ingersoll said that he had commissioned seven of the country's outstanding architects to design 12 homes to show the wide flexibility and practical operation of the unit. These homes are now in process of construction at Kalamazoo, Mich.

The core of this new home utility contains central oil or gas heating plants with thermostatically controlled forced warm filtered air, entire household plumbing, hot water heating, electrical connections, and meters. This central core is a self-contained package which can be rolled through the door framework and yet is so engineered for accessibility that a man can get inside and service it.

On three sides of the core, integrated in streamlined design, are the appliances and facilities which belong in modern kitchens, laundries, and bathrooms.

Around two sides of the central core are work counters with wall and counter cabinets, sink, range, refrigerator, and many innovations in cabinets and accessories which are made possible by integrated design. Adjacent to the kitchen facilities is complete laundry equipment.

On the third side are grouped bathroom fixtures and accessories. Functional lighting has been provided as an integral part of the kitchen, bathroom, and laundry. The entire unit is mechanically ventilated.

This whole assembly covers a floor area of 9½ ft. by 9½ ft. or 90 sq. ft., bringing into this small space all the domestic utility appliances and fixtures.

This unit is offered in a standard model and a deluxe model. Cabinets in both the standard and deluxe models have the same outward appearance, the difference being in accessories and refinements.

Kitchen and laundry cabinets, both lower and upper, are steel, finished in white enamel. The work counters in both the kitchen and laundry sections are porcelain enamel in a light gray or white. The back wall area between the upper and lower cabinets is steel, finished in white or light gray porcelain enamel. At the floor is a recess 4 in. high supplying toe space and permitting easy cleaning.

Cabinet doors are uniformly closed with friction catches and opened by recessed finger grips so that no external knobs are employed. Cabinet doors have rounded tops and bottoms and exterior corners, this for appearance, strength, and ease of cleaning. Doors are sound-deadened and provided with rubber bumpers.

The top of the cabinets in the kitchen and laundry area is 7 ft. high. Area above this to ceiling height will be filled by the builder. Grilles are provided through the filler strips for heat into kitchen and laundry area and for gas stove venting.

The kitchen area is 9 ft. 6 in. long, divided into food storage sections, including refrigerator; food preparation section, including work counters and sink; and cooking section, including range. Work counters are 36 in. above the floor. Work space from counter to upper cabinets is 18 in. The kitchen counter is 24 in. deep to back wall.

Lighting is provided in volume. In addition to conventional lighting in the kitchen, the cabinet design provides for tubular fluorescent lighting concealed under the upper cabinets so that the housewife will be protected from direct glare and shadow. Ample and convenient electrical outlets are provided for lighting and all other electrical equipment.

A 7-cu. ft. electric refrigerator, 29¾ in. wide, is provided. A filler strip connects the contour of the refrigerator with the cabinet above it.

Storage cabinet space is provided over the refrigerator. It is 35¼ in. long by 13 in. deep by 19 7/16 in. high, and is set forward 4 in. in front of the line of the adjoining cabinets.

(Concluded on next page)

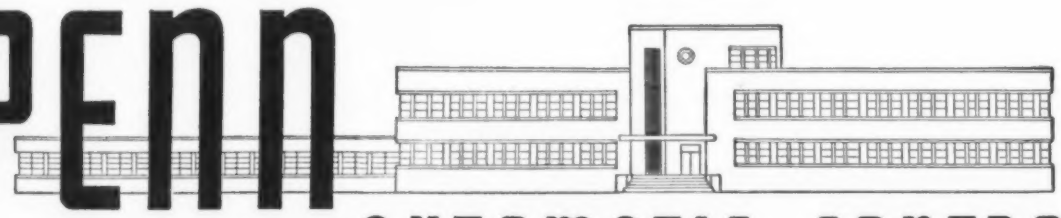
You are always in our plant

You, the man who installs and is responsible for the performance and efficiency of refrigeration equipment! You, who entrust the reputation of your product to the operation of PENN Controls! *You are always in our plant!*

At PENN, your needs . . . your desires . . . the things you want done are most *important.* PENN test engineers are paid to be critical . . . paid to find fault . . . paid to assure you the best automatic controls that can be built. For example, here, one of these engineers analyzes contact mechanism action of two refrigeration controls on a vibrator machine by means of a stroboscope. He is guarding you against the vicious chatter . . . the destructive vibration that burns contacts, cuts down control life and damages relays and contactors.

You can rest assured that every PENN refrigeration control is designed, built and *thoroughly tested* to assure highly satisfactory operation under all normal service conditions. Controls are available for temperatures as low as −150° F., and for pressures as low as 28" vacuum. Ask your jobber for PENN Controls—or write direct. There is no obligation. *Penn Electric Switch Co.,* Goshen, Indiana. Export Division: 13 E. 40th Street, New York 16, U. S. A. In Canada: Penn Controls, Ltd., Toronto, Ontario.

PENN



AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, ENGINES, PUMPS AND AIR COMPRESSORS

HENRY

Balanced-Action Diaphragm Packless Valve

The only packless valve that gives you 24 important features of design, construction and operation—all described in catalog No. 96. It's yours for the asking.

LEAK PROOF • PORTS IN LINE • LONGER LIFE • OVAL HAND WHEEL

HENRY VALVE CO. 1019 N. SPAULDING AVE. CHICAGO

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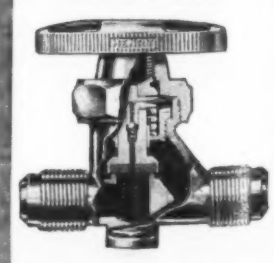
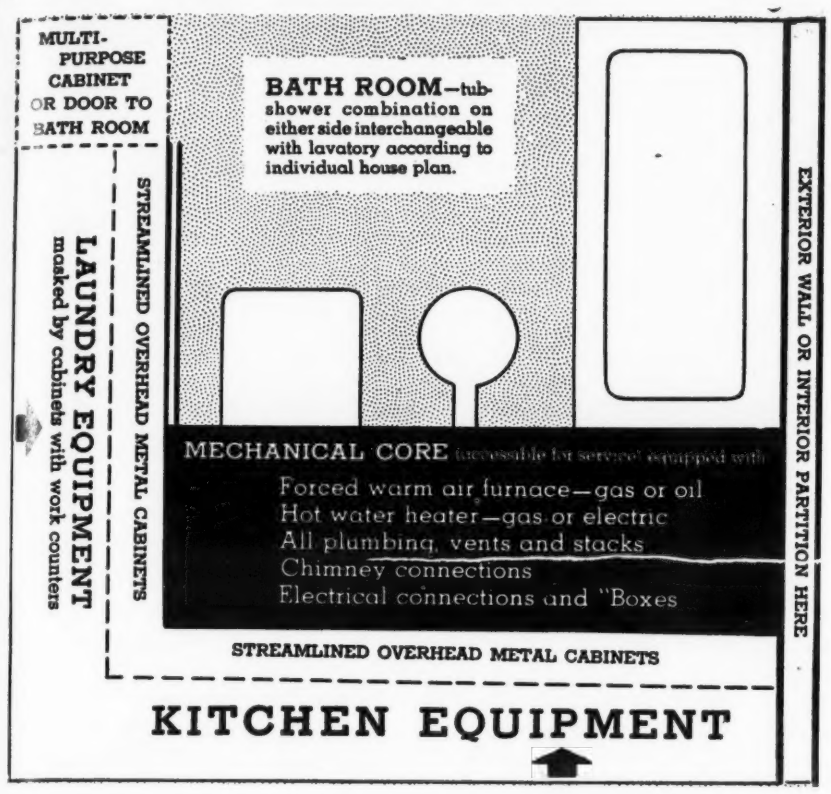


ASK YOUR JOBBER

How Areas Adjoining Utility Unit's 'Core'


MULTI-PURPOSE CABINET OR DOOR TO BATH ROOM
BATH ROOM—tub-shower combination on either side interchangeable with lavatory according to individual house plan.
EXTERIOR WALL OR INTERIOR PARTITION HERE
STREAMLINED OVERHEAD METAL CABINETS
LAUNDRY EQUIPMENT masked by cabinets with work counters
MECHANICAL CORE accessible for service equipped with
Forced warm air furnace—gas or oil
Hot water heater—gas or electric
All plumbing, vents and stacks
Chimney connections
Electrical connections and "Boxes
STREAMLINED OVERHEAD METAL CABINETS
KITCHEN EQUIPMENT

This plan view of the new Ingersoll utility unit indicates how kitchen, laundry, and bathroom equipment are connected to the central mechanical core in a small home. Kitchen equipment includes a 7-ft. refrigerator, cabinets, gas or electric range, and sink. Provision is made on the laundry side for an automatic washer, laundry trays, cabinets, and the kitchen exhaust fan.

Kitchen & Laundry Areas are Adjoining

(Concluded from preceding page)

This allows space to ventilate the refrigerator.

The cabinet is divided conveniently for storage of small trays, baking pans, pot lids, and other items up to 18 in. in height.

The sink section is 5 ft. long, 24 in. deep, and 36 in. high, extending from the refrigerator to the range. The sink may be either single or double. Sink fittings include a swing spout, hot and cold water valves, and location for a spray supplied as an accessory for some models.

Space has been provided for an optional dishwasher between the sink and the refrigerator. This compartment is 22½ in. wide with two side hinged doors and two adjustable shelves. Shelves are set back to permit installation of vegetable racks to hang on the inside of the doors.

Three lower cabinet sections are provided in the sink area between the refrigerator and the stove. Two of these cabinets are equipped with double side hinged doors, the third being equipped with drawers. Provision is made in these cabinets for vegetable racks, access to plumbing connections, garbage pails, towel dispensers, and racks for cleaning equipment. The drawer cabinet provides for cutlery drawer, bread and cake storage, including cutting board, and additional small pot storage.

The range, either gas or electric, is located at the corner of the kitchen area adjacent to the sink and laundry area. Range is 4-burner top with broiler at the bottom and oven above broiler. The range is covered by a sliding lid which forms a work table 24 x 20 in. A sliding utensil rack is provided in the 4-in. space between the range and laundry area.

Three upper wall cabinets, 22½ x 13 x 30 in., in the kitchen area provide more than 16 cu. ft. of storage space. Shelving is adjusted so that the larger space is at top of cabinets for less frequently used items.

The laundry area, at the end of the central core, adjoins the kitchen, but is separated by an external right angle permitting a separate working area. The counter height is the same as the kitchen, 36 in., and working space from counter to upper cabinets is 18 in. Depth of counter space to back wall has been increased to 28 in. to accommodate an automatic washer. To provide full access to laundry trays, both top and front have been designed to fold completely out of the way. Above the laundry unit are two storage cabinets 13 in. deep.

A multi-use cabinet is provided at end of laundry unit 37 in. wide, 28 in. deep, and 7 ft. high. This cabinet is arranged shelfwise for storage of cleaning supplies, brooms, mops, sweepers, etc.

One purpose of the "test-house" construction program at Kalamazoo was to test out the units under practical living conditions in a fairly severe climate. The first of the homes to be completed is heated with oil and has gas for cooking and water heating. Variations in the unit are provided, such as electric ranges and hot water heaters. The choice is also offered between heating with gas or fuel oil.

Mr. Ingersoll says that the new home utility unit is designed to accomplish the following benefits:

1. A builder restricted to an extremely limited budget can supply living facilities.

2. The reduction in house cubage made possible by use of the central utility core should save materially on general construction expense, and possibly bring complete facilities into the reach of marginal families.

3. Lower cost, long term financing of the house complete with utilities is made possible.

Illinois Locker Plant Suffers Loss In Fire

BUNKER HILL, Ill.—Due to a short circuit in the wiring, the Bunker Hill Locker Co. here was razed by fire, causing damage estimated at $15,000 with the loss of 25,000 pounds of meat and a large amount of fruits and vegetables.

After the blaze was discovered at 1 a.m., Bunker Hill firemen assisted by Gillespie and Bethalto departments fought for five hours to bring it under control. Officials estimated that an additional 25,000 pounds of meat was carried to safety.

Of the loss, $10,000 was covered by insurance. Contents of many lockers belonged to residents of Granite City, Wood River, and other neighboring communities.

Bakery Shops Warned To Handle Frozen Foods

DALLAS, Tex.—"Is there any better place than a nice, clean retail bake shop to sell frozen food? Aren't frozen foods and dairy products, both of which require refrigeration, kindred products to baked goods? Why not increase your sales volume and get a bigger share of the homemaker's food dollar by merchandising frozen foods and possibly dairy products in your store along with, and in addition to, your regular baked goods?" questioned a recent article in *The Southwest Baker* entitled, "The Place of Frozen Foods in the Bakery."

The article concedes that there will always be a good market for baked goods, but that frozen foods and prepared mixes are very likely to cut in on this market somewhat.

"Of the homemaker's food dollar, 37½ cents is spent for food, and bakers are getting only 3½ or a little over 9% of the food dollar," the article shows.

Among the frozen foods recommended for handling in bakeries, frozen cake batter and frozen icing could be home made by the baker, the article suggests.

"It is practical to package such items in your shop, and it is less expensive than baking and icing cakes. You already have the necessary equipment for making the products. All you need in addition is a freezing unit, a comparatively small investment."

Increased profits and lower overhead, says the article, will result for the baker who supplements his regular line of goods with appropriate frozen products.

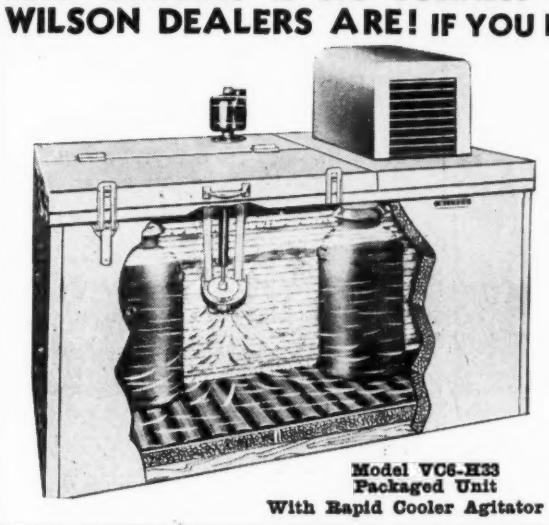
British Columbia Co-op Plans Freezer Plant

MISSION, B. C., Canada—Preparation of plans for the construction of a quick-freezing and storage plant for the Pacific Co-operative Union at Mission, B. C., was approved at the annual meeting of that organization recently.

The sharp-freeze room will have dimensions of 18 by 11 feet, and the holding room, 50 by 50 by 11 feet high.

Plans and estimates will be submitted to a special general meeting of members to be arranged in the immediate future. It is hoped that construction can be completed in time for the plant to handle the 1946 fruit crop in which many Co-op members have an interest.

MILK COOLING IS BIG BUSINESS . . . . ARE YOU GETTING YOUR SHARE?
WILSON DEALERS ARE! IF YOU HAVE MODERN SALES AND SERVICE, WRITE NOW.



Model VC6-H33 Packaged Unit With Rapid Cooler Agitator

WILSON
SYSTEMS OF MILK COOLING
A TYPE FOR EVERY REQUIREMENT
3. Verti-Coil with RAPID-COOLER AGITATOR

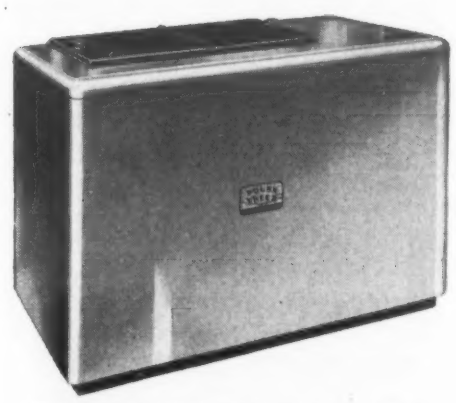
- The Wilson Verti-Coil Cooler equipped with the RAPID-COOLER AGITATOR (Pat.) WILL COOL TWICE THE CABINET CAPACITY DAILY WITH EXTREME RAPIDITY.
- ALL WILSON MILK COOLERS ARE NOTED FOR: RAPID AND UNIFORM COOLING. MAXIMUM COOLING EFFICIENCY. LOW COST OF OPERATION. LIFE-TESTED CONSTRUCTION.

WILSON REFRIGERATION, INC. SMYRNA DELAWARE
DIVISION WILSON CABINET CO.

Get Ready to Supply when Customers Demand
"POLAR-FREEZ, PLEASE!"

It will pay you to investigate the profit opportunities of the Schelm "Polar Freez," cold-storage food cabinet now in demand by so many quality-conscious housewives, farmers, sportsmen, and commercial users. Here's a low-temperature unit that can be a real money-maker for you . . . an economical, convenient, long-wearing appliance you'll be proud to sell.

Write, 'phone or wire us TODAY for complete details on the Schelm line of profit-makers . . . "Polar Freez" food storage cabinets, air conditioning units, attic fans and furnace blowers.



The Schelm "Polar Freez" is modern in design . . . economical to operate. Available in 8 cu. ft. capacity, for home or commercial use.

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CHICAGO OFFICE:
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STOP-FIRE
IT'S A MUST IN EVERY SHOP 8.95

The most efficient extinguisher manufactured

FEATURES
★ Leak Proof ★ Protected Nozzle
★ Brass Shell ★ 35 ft. Discharge
★ Patented Seal in Handle
★ Non-Deteriorating Gasket
★ Double Action Pump
★ Lead-Handle Nozzle ★ Solid Brass Forging
★ Evaporation Proof ★ Panic Proof Handle

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(Ceiling $15.00 each)
Two or more @ 8.50 each

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(Manufacturers Representative)
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What's New

New Function In Apex Automatic Washer

NEW YORK CITY—Featuring a "bouncing basket," self-leveling hydraulic "feet," and an additional cycle labeled "fluffing," a new automatic washer was demonstrated for press representatives by Apex Electrical Mfg. Co. of Cleveland last week at the Commodore hotel here.

The unit is expected to retail at about $200, but will not be generally available until midsummer, barring any lengthy production delays due to strikes or material shortages, declared Apex officials who conducted the demonstration. C. G. Frantz, founder and president, and A. C. Scott, vice president in charge of sales, headed the group.

Chief of the "unusual" engineering developments claimed for the Apex machine is the bouncing action of the perforated aluminum and magnesium basket. The clothes are inserted through a top opening into the basket which bounces but does not revolve during the first, or washing cycle.

Movement of the basket, combined with the action of baffles in the basket, makes the clothes tumble and turn as sudsy water is sprayed on them. Apex claims that the bouncing action provides a more thorough cleansing with less strain and wear on fabrics.

Alternate use of the bouncing action and a spinning action three times in the rinsing cycle is said to eliminate all suds. The third cycle —damp drying—is accomplished by the basket's revolving at 600 r.p.m. for five minutes.

Following this, the machine reverts to the original bouncing action to "fluff" the clothes, which, at the end of the preceding spin-dry cycle, were more or less matted against the sides of the basket.

The new Apex washer, with a housewife removing the "fluffed up" damp-dry clothes. This "fluffing" is claimed to be an added function.

The complete automatic cycle requires from 17 to 25 minutes. With light fabrics the 10-minute washing cycle may be reduced.

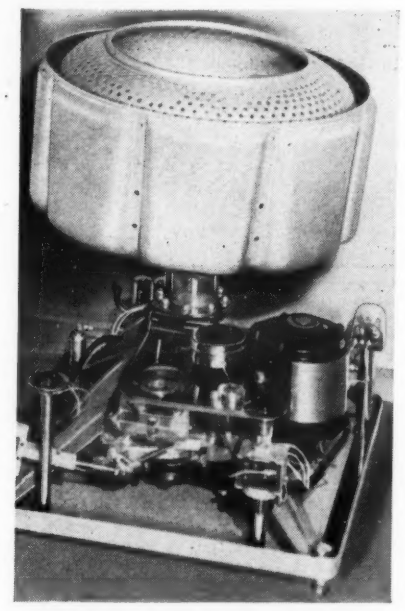
Temperature of the washing water may be varied by the housewife from 130° F. for fast-colored cottons to 100° F. for woolens. Rinse water is held automatically at 100°, which, Apex claims, has proved effective in independent tests.

A 30-gal. hot water heater will keep the washer operating at peak efficiency through repeated loadings, Apex claims.

This mechanism, plus the hydraulic self-leveling feet which automatically adjust to variations in floor surface, permit the washer to be installed as a "plug-in" appliance without having to be bolted to the floor, Apex claims.

The top loading aperture is fitted with a Pyrex port so the operator can observe the clothes as they are being washed. The unit is also fitted with an interior light.

An automatic cut-off switch on the lid stops all action if the lid is lifted. The cycle resumes as though it had not been interrupted when the lid is shut.



The "bouncing basket" of the Apex automatic. During the washing phase of the cycle the basket bounces vigorously but does not revolve.

All-Purpose Shop-Type Dehydrating Oven

MINNEAPOLIS—Mass production of new "all-purpose" RS industrial ovens adaptable for baking and drying processes up to 500° F., is announced by the Despatch Oven Co. Said to reduce baking time by as much as 50%, the units are self-contained and require only lead-in of gas or electricity for complete installation.

A special loading dolly and shelf arrangement permit easy loading and maximum use, the firm states. Other features are upright position, automatic controls, special safety devices, and complete insulation.

Uses now being made of the ovens are listed as radio and radar coil and armature drying and baking, carbon embrittlement and aluminum aging, baking a variety of finishes, and dehydrating and drying.

Adjustable Calibrated Cam-Stat Control

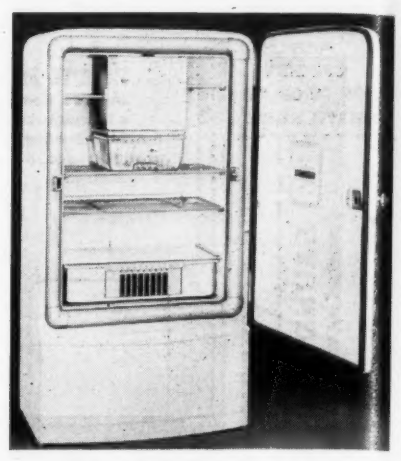
LOS ANGELES — Adjustable calibrated Cam-Stat temperature control has been announced by Paul Henry Co. here, with the claim that the control makes possible precise dial selection of the temperature control point with uniformity of dial accuracy in all units.

Adaptable to the control of air, gas, liquids, or solids, a choice of adjustable ranges is available between -50° and 600° F., with differentials down to 1° F., company officials say. The Cam-Stat can be clamped on the tank, or the element can be immersed in water.

The new temperature control has double-break snap-action contacts with a rating of 12 amperes, 115 volts A.C. or 28 volts D.C., and is available in S.P.S.T., S.P.D.T., or S.P.D.T.-independent circuit, it is reported.

Other claims made for the control by the Paul Henry Co. include: virtually no increase in space required for mountings, virtually no increase in price over other thermostats without calibrating dial, tamper-proof dial installation preventing changing of adjustable range provided at the factory, and an adaptability to specially styled adjusting knobs and other design requirements.

In Norge 1946 Line



Sometime ago Norge announced several new products, but did not include pictures of its 1946 refrigerator and range models. Above is shown the newly announced 1946 standard Norge model with 7.08 cu. ft. capacity.

This is a 1946 Norge electric range model with three fast heating cooking units and utility cooker, six-heat slow make and break switches, and oven-heat control with pre-heat, back, and broil switch and signal light.

Instrument To Measure Any Loss in Airflow

ROCHESTER, N. Y. — Dollinger Corp. announces that its new Flocator, designed for use in any air ventilating system to show "any loss of airflow from any cause whatsoever," is now in production here.

The firm describes the Flocator as "the latest design of a new and inexpensive airflow indicating instrument" that will require "little or no attention for continuous operation." It is claimed that the Flocator

records the percentage of maximum flow at all times, "information which the ordinary type of draft gauge fails to indicate."

It is made in two models, Model 45 for small capacity ventilation, and Model 75 for large capacity.

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AMERICA'S BEST COMMERCIAL LINE!
Refrigerators
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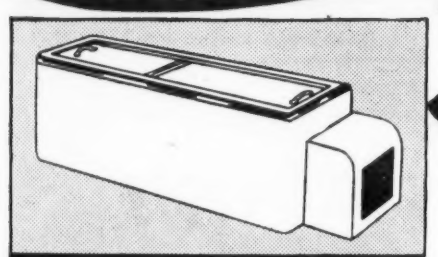

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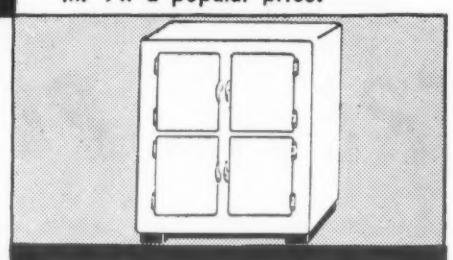
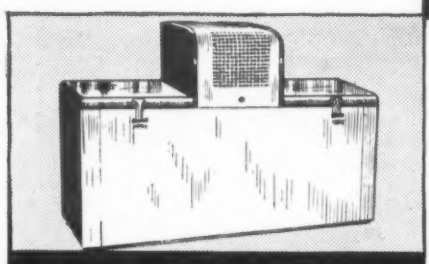


REACH-IN MODEL R-42



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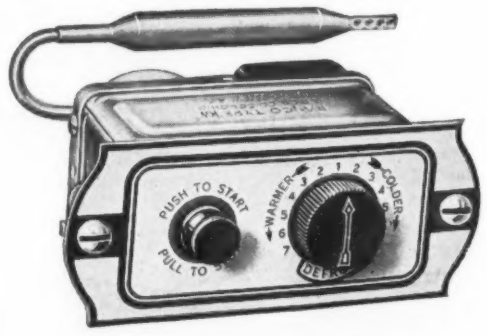

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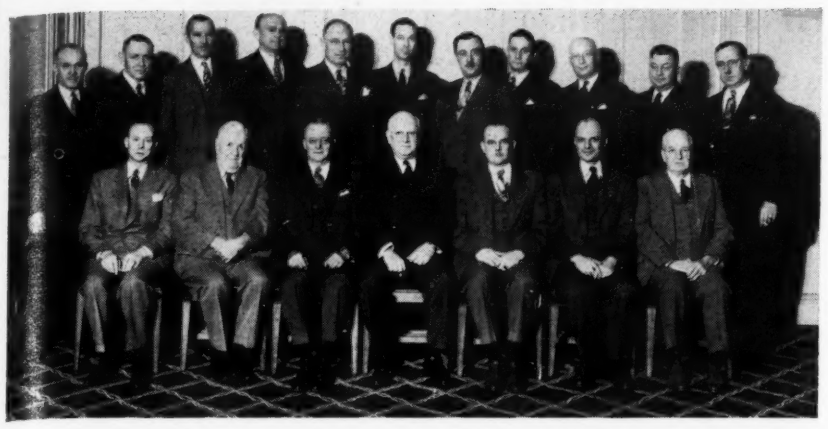
Cleveland League Again Re-elects Jack North



Jack North has been re-elected for his 24th consecutive term as president of the Electrical League of Cleveland. Other officers include L. T. Blaisdell, commercial vice president of General Electric Co., and W. L. Howlett, manager of Westinghouse Electric Supply Co., Cleveland as vice presidents. S. E. Strunk is secretary and H. Hutchisson, treasurer.

Officers and directors of league are pictured above. Front row (left to right): A. C. Berg, H. Hutchisson, L. T. Blaisdell, J. E. North, W. L. Howlett, S. E. Strunk, H. L. Martien. Second row: C. E. Fruehauf, J. J. Bohning, F. R. Maguire, W. E. Henges, F. G. Hickling, F. J. Hopperton, C. B. Gray. Directors W. S. Fell and H. H. Kennedy were not present when the photo was taken.

* * *

Hoak to Manage Home Bureau for League

CLEVELAND — Clarke A. Hoak has resumed his position as manager of the Electric Home Bureau for the Electrical League of Cleveland after three years' service with the United States Army.

A graduate of Ohio Wesleyan University, Mr. Hoak has been associated with the league since 1935. He established the Electric Home Bureau in 1937 to further the league's cooperation with builders, architects, members of financial institutions, and other allied groups.

Through the Electric Home Bureau, Mr. Hoak plans to show the building industry the advantages of planning for electrical living by emphasizing the all-electric "work-LESS" kitchen, the modern automatic indoor laundry, winter and summer air conditioning, good lighting indoors, and adequate wiring.

Baldwin-Hill Folder Describes New cement

TRENTON, N. J. — Baldwin-Hill Co. here has just released a new four-page, fully-illustrated folder on their B-H No. 1 insulating cement. This 8½ by 11 folder provides factual information, tables, and charts on the efficiency, coverage, and ease of application of the product.

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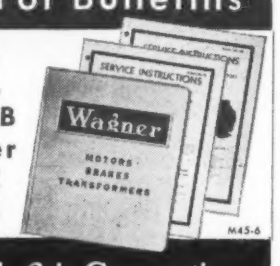

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Texas Supreme Court Will Review Utility Store Tax

AUSTIN, Tex. — The Texas Supreme Court, granting an application for writ of error, agreed (Jan. 9) to review a test case between the state and the Southwestern Gas & Electric Co., over the validity of a statute exempting from chain store taxes the appliance stores which gas and electric utilities operate in towns of 3,000 or less population. The immediate case involves $16,753 in taxes, but payment of approximately $400,000 from other companies will depend upon its outcome.

The court agreed to consider the case upon Attorney General Grover Sellers' allegation that the lower courts erred in not holding the exemption was discriminatory.

The attorney general said the exemption works, as follows:

"In a town such as Bastrop or La Grange—populations under 3,000 according to the last federal census—a utility could operate an appliance store without paying chain store tax, whereas a discharged war veteran or any other citizen not in the utility business who might desire to open up an appliance store would have to pay the tax. A more flagrant example of class legislation could hardly be imagined."

Miller Appointed Head of Westinghouse District

PORTLAND, Ore. — H. Norman Miller, a member of Westinghouse Electric Corp.'s industrial sales staff here for the past 19 years, has been appointed manager for the company in this area.

Mr. Miller succeeds L. G. Fear, who has been assigned as a special representative in both the Seattle and Portland districts to coordinate expanding Westinghouse activities throughout the Pacific Northwest and Alaska.

Announcement of these appointments was made by Charles A. Dostal, of San Francisco, vice president in charge of the Westinghouse Pacific Coast district.

Mr. Miller will direct Westinghouse men who are being assigned to such fields of specialization as electronics, induction and dielectric heating, welding and communications.

A Naval veteran of World War I, Mr. Miller joined Westinghouse as a graduate student at East Pittsburgh in 1925, two years after receiving his electrical engineering degree at Oregon State College. He served in various sales posts at East Pittsburgh, South Philadelphia, and Mansfield, Ohio, before being transferred to Portland in 1926.

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A.S.H.V.E.--

(Concluded from Page 1, Column 3)

Allen, a pioneer in the employment of "cold" as an anesthesia, who outlined recent developments in this comparatively new field of surgery and predicted possible future developments.

At business meetings the society voted to hold its 1946 spring meeting in Montreal during June and has scheduled the 1947 fifty-third annual meeting for Cleveland Jan. 27 to 29. The Cleveland meeting will be held in conjunction with the Seventh International Heating & Ventilating Exposition.

OFFNER HEADS SOCIETY

Heading the newly elected A.S.H.V.E. officers who were installed during the meeting is the president, Alfred J. Offner of New York City, who has served as consulting engineer for numerous government and private buildings in the United States and in Europe, South America, and Asia. Long active in the society, Mr. Offner last year was first vice president.

Baldwin M. Woods was elected first vice president; G. L. Tuve, second vice president; and J. F. Collins, Jr., treasurer. A. V. Hutchinson and Carl H. Flink continue as secretary and technical secretary, respectively.

RESEARCH COMMITTEE

New members of the A.S.H.V.E. council include E. G. Carrier, F. W. Hutchinson, R. A. Sherman, and M. S. Wunderlich.

L. P. Saunders now heads the society's committee on research, comprised of L. N. Hunter, C. O. Mackey, R. D. Madison, and L. G. Miller.

Capt. A. E. Stacey, Jr., USNR, of Buensod-Stacey, Inc., New York refrigeration and air conditioning contractor, was awarded the F. Paul Anderson for his service in the Navy during the war. The presentation was made by Dr. Willis H. Carrier at the annual banquet. Retiring president C.-E. A. Winslow was presented with the past president's emblem, and S. H. Downs, who headed the society in 1944, received the past president's "memory book" during the banquet.

NOMINATING PROCEDURE IS CHANGED

Numerous changes and amendments in the A.S.H.V.E. constitution were approved during this meeting. Most significant, perhaps, was one altering the manner of selecting nominees for national offices of the Society—a move which has been the subject of considerable controversy for several years.

By a standing vote of 81 to 47 the members adopted a plan which substitutes an 11-man nominating committee for the much larger group which heretofore chose nominees. This move, proponents claim, will give more equitable representation to the 2,946 A.S.H.V.E. members who are affiliated with chapters and the 1,395 "unattached" members.

Four members (and an alternate) of the new nominating committee are to be named by the council. Seven members (and one alternate) will be elected by the society members, one from each of six regional areas of the United States, plus one from Canada.

RESEARCH EXPANDED ALONG SEVERAL LINES

Highlights of the expanding program of research being undertaken by the society at its laboratory in Cleveland were presented at the meeting by G. L. Tuve, who has headed the research committee, and Cyril Tasker, director of research.

Of special interest to the comfort cooling engineer, according to Mr. Tasker, are the studies on solar radiation transmission through glass now in process. To make studies under actual weather conditions, the laboratory has constructed apparatus consisting essentially of a 4 ft. by 4 ft. window frame pivoted on a horizontal axis, the whole being carried on a turn table.

Heat transmitted by the window, or any other glass surface under test, is absorbed by a water-cooled section fastened to the rear side of the frame. The mechanism makes it possible to study the effect of the angle of incidence and exterior and interior shading, explained Mr. Tasker.

Refrigeration & Air Conditioning Engineering School Formed In Detroit by F. O. Jordan

DETROIT — The F. O. Jordan School of Engineering is now in operation here to provide instruction in refrigeration and air conditioning engineering. The school has been licensed by the Michigan State Board of Education.

Principal means of instruction will be through a 60-chapter course which will concentrate heavily on actual field engineering problems of survey, layout, and design. At the conclusion of the home study period, the students have the option of taking additional training in Detroit under personal supervision.

The course is intended for individuals who have had some engineering training or practical technical experience, and who plan to specialize in refrigeration and air conditioning engineering work.

F. O. Jordan, the founder and head of the school, is a graduate of Purdue university. After serving as an engineering officer in World War I, he taught for a time at Purdue, and then worked for a number of years as a design engineer for engineering firms in Detroit.

Since 1933 he has been actively engaged in the refrigeration and air conditioning industry, having been a development engineer for Kelvinator, assistant chief engineer for Airtemp Division of Chrysler Corp., technical director in charge of the training program in refrigeration and air conditioning for the Industrial Training Institute, consulting engineer for architects and engineering firms, writer of engineering specifications for Albert Kahn & Co., Associated Architects and Engineers, and consulting engineer for the Detroit Board of Education.

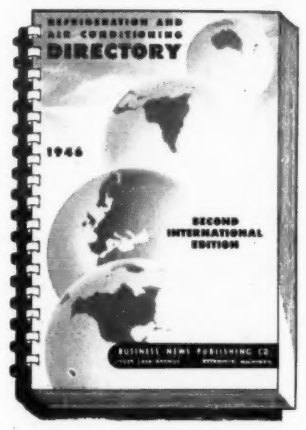
He is the author of the "Air Conditioning Made Easy" manuals on air conditioning engineering published by Business News Publishing Co., and has written technical articles for a number of the leading technical publications in the field.

Directly associated with Mr. Jordan in the school is A. T. Bersey, who has held executive engineering positions with May Oil Burner Co. and Kelvinator, and who was head of the air conditioning shops and laboratories at Industrial Training Institute.

Others who have assisted in the preparation of the training course include H. E. Ziel, head of the air conditioning and refrigeration departments for Albert Kahn and a man who has been active on the national committees of the A.S.H. & V.E.; and N. A. Baker, research engineer for Parker Rust Proof Co., a former development engineer for Kelvinator and Norge, and at one time a director of Industrial Training Institute.

Super-Cold Distributor

PITTSBURGH — Egerman Store Fixture Co. has announced through President R. J. Egerman that it is exclusive distributor of Super-Cold Corp. products in western Pennsylvania. The firm has established a new showroom in their building.



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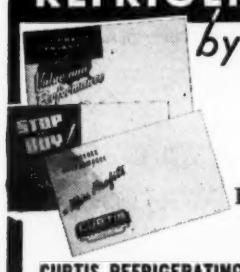

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Along the Eastern Seaboard States.
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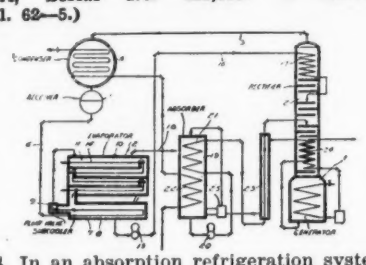
PATENTS

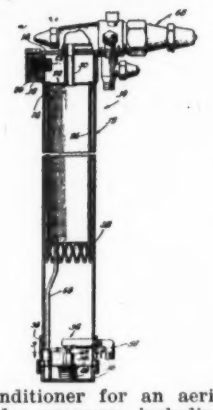
Week of Jan. 15, 1946

2,392,894. REFRIGERATION SYSTEM. Joseph R. Zwickl, East Orange, N. J., assignor to Worthington Pump & Machinery Corp., Harrison, N. J., a corporation of Delaware. Application Feb. 19, 1944, Serial No. 523,003. 6 Claims. (Cl. 62—5.)



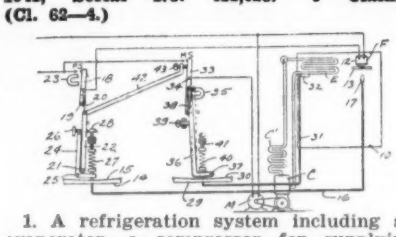
4. In an absorption refrigeration system utilizing a refrigerant to cool a fluid to be cooled, a generator, a rectifier, an absorber, a condenser, and an evaporator through which the fluid to be cooled flows in a closed passage, a subcooler having a closed passage therethrough, means connecting the subcooler closed passage to said condenser for receiving condensed refrigerant from the condenser, means connecting said subcooler closed passage to said evaporator for delivering the refrigerant from the subcooler closed passage into said evaporator, said evaporator embodying means for causing a flow of the refrigerant therethrough in multiple passes counter-current to the flow of the fluid to be cooled through the cooler, a connection between said evaporator and subcooler for permitting the non-evaporated refrigerant to flow from the evaporator into the subcooler about the exterior of said subcooler closed passage, and a float valve operated by variances in the level of non-evaporated refrigerant in the subcooler for cntrolling the flow of refrigerant from the subcooler closed passage into the evaporator.

2,393,119. AIR CONDITIONER. Jens A. Paasche, Chicago, Ill. Application May 31, 1943, Serial No. 489,211. 3 Claims. (Cl. 183—1.)



3. A conditioner for an aeriform substance under pressure, including in combination a vertical cylindrical metal receptacle, inlet and outlet means adjacent the upper portion of said receptacle, a vertical cylindrical metal baffle member arranged within said receptacle interposed between said inlet and outlet means, forming a narrow elongated passage with said receptacle, and an expanded metal mesh cylindrical member of single thickness arranged within said elongated passage in spaced relation with a wall thereof to expedite the agglomeration of moisture from the aeriform substance passing through said elongated passage.

2,393,123. REFRIGERATION SYSTEM. Burton E. Shaw, Bristol, and Wilbur W. Wood, Goshen, Ind., assignors to Penn Electric Switch Co., Goshen, Ind., a corporation of Iowa. Application Sept. 16, 1941, Serial No. 411,028. 9 Claims. (Cl. 62—4.)



1. A refrigeration system including an evaporator, a compressor for supplying refrigerant thereto, a motor for operating said compressor, a fan for circulating air in the space being cooled by said evaporator, a motor for said fan, and control means for said motors, said control means comprising a fan motor switch responsive to the temperature of the air being circulated, and a compressor motor switch responsive to evaporator temperature for cut-in and responsive to the temperature of the air being circulated for cutout.

William A. Moser Forms 3 Firms In Buffalo

BUFFALO—Business names have been filed here for the Moser Refrigeration Service, Moser Electrical Appliance Co., and Moser Furniture Equipment Co., 13 Awood, Cheektowaga, by William A. Moser.

. . . . MODERN EFFICIENT ECONOMICAL REFRIGERATION
DOLE Vacuum COLD PLATES
Maximum Refrigeration Efficiency
for all REFRIGERATION PURPOSES
DOLE
Largest Manufacturers of Plate Type Evaporators
REFRIGERATING COMPANY
5910 North Pulaski Road, Chicago 30, Illinois
New York Branch 103 Park Avenue, New York 17, N. Y.

Heads New District

FLOYD M. DUVALL

* * *

Ansul Shifts Duvall To Indianapolis

INDIANAPOLIS — Floyd M. Duvall, who became manager of the Chicago Dugas office for Ansul Chemical Co., Marinette, Wis., in June, 1944, and prior to that time was a member of the company's Paoli, Pa., office staff, is the new district office manager for Ansul refrigerants at Indianapolis.

Mr. Duvall succeeds L. T. Plouff, who has been advanced to assistant sales manager of Ansul's refrigeration sales department with headquarters at Marinette. Mr. Duvall will cover Indiana, Ohio, lower Michigan, Kentucky, and Tennessee.

4 Territory Appointments Announced by Wagner

ST. LOUIS—Two salesmen have been elevated to branch manager positions, and two branch managers have been transferred to new territories by Wagner Electric Corp., C. B. Dietrich, advertising manager, announced.

Forrest G. Wilson, formerly a salesman at the Dallas branch, has been appointed manager of the Indianapolis division; and J. K. Miller has taken over the management of the Boston branch, having been a New York branch salesman.

H. F. Zahn, formerly manager of the Atlanta branch, has been transferred to Philadelphia; and C. G. Jackson has been moved to Atlanta to head up Wagner affairs there, having supervised the firm's Boston branch previously.

Machine Freezers, Inc., Formed In Los Angeles

LOS ANGELES — Machine freezers, Inc., is a new corporation in Los Angeles, with a capital of $25,000. Directors are Joseph M. Roush, J. D. Bruner, and George L. Duke.

Wisconsin RSES Plans First State Meeting

MADISON, Wis. — First annual convention of the Wisconsin state association of the Refrigeration Service Engineers Society has been scheduled for March 16 and 17 at the Park hotel here.

Tentative program of convention activities has been drawn up as follows, according to C. Buschkopf, acting president of the organization:

March 16, Saturday
Morning—Registration
2:00 p.m.—Opening of meeting
2:30 p.m.—Reading of minutes of previous meeting
3:00 p.m.—Speaker
3:30 p.m.—A talk
4:00 p.m.—Question box
Evening—8:00 p.m.—Dance and entertainment

March 17, Sunday
10:30 a.m.—Meeting called to order
Report of Committees:
Resolution
Auditing
Nominating
12:00 Noon—Installation of officers
12:15 p.m.—Open discussion
1:00 p.m.—Adjournment
1:30 p.m.—Banquet

Headquarters of the Society are at 211 Gould St., Beaver Dam, Wis.

Wright to Represent Alco In Southeast

LEONARD K. WRIGHT, JR.

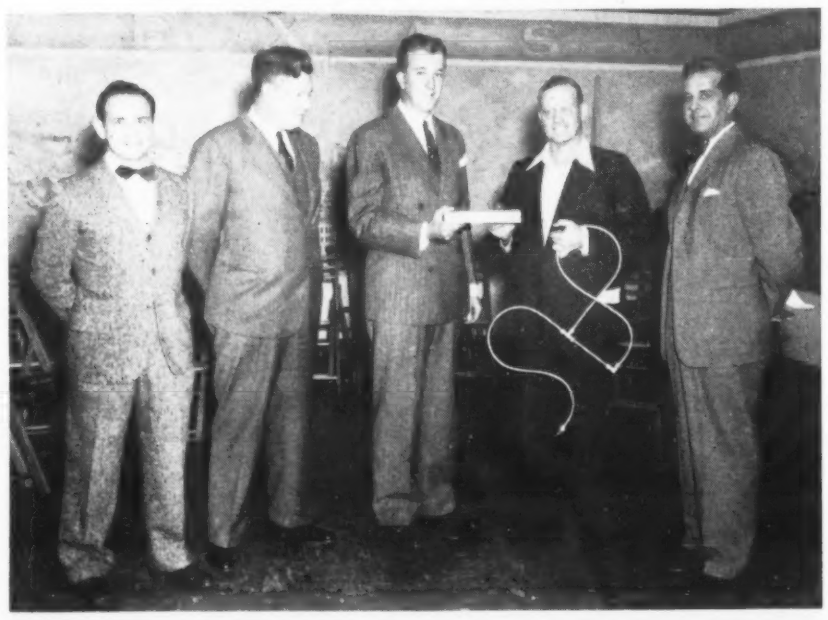
* * *

ST. LOUIS—Leonard K. Wright, Jr., of Knoxville, Tenn., retiring from the U. S. Army Air Forces as a captain after three and a half years of service, will represent Alco Valve Co. as field engineer in the southeastern territory.

Mr. Wright attended the University of Tennessee and in 1940 joined the Ansul Chemical Co., refrigerant manufacturer. He was district manager for Ansul in Des Moines, Iowa, when he entered the Army in April, 1942. He served as a pilot in the heavy bombardment group, flying 40 missions in the Pacific Theater.

Tube Bending Contests Are Here Again

C. H. Chapman set some new records in winning the Imperial tube bending and flaring contest sponsored by Standard Brass & Mfg. Co. in Houston some weeks back. He completed the contest problem in 14 minutes, 11 seconds, and turned in a perfect specimen. Fred L. White was second, and third prize went to R. S. Mann.



In the picture above are (left to right): Joe Cartullo, Standard Brass & Mfg. Co.; George Franck, Imperial Brass Mfg. Co.; Harry Pearson, Imperial Brass; Winner C. H. Chapman; and George Boone, Standard Brass & Mfg. Co.

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" $2.50 per insertion. Limit 50 words.

POSITIONS WANTED

MECHANICAL REFRIGERATOR Salesman for contact work with distributors, department stores, and dealers. Must have field experience and able to handle large accounts. Excellent opportunity for good man. Well financed company with Chicago headquarters. Box 1907, Air Conditioning & Refrigeration News.

ASSISTANT CHIEF ENGINEER large company. Familiar with all four refrigerants from design and application standpoint. Actively engaged in engineering, research, design, and manufacturing past 14 years. Seeks connection with small, aggressive company where ability and experience will get results. Southwestern area preferred. Minimum salary $6,500. Box 1909, Air Conditioning & Refrigeration News.

AVAILABLE: Independent commercial service engineer, with many years experience, including that of a licensed operating engineer, would like position or business opportunity. Associate member A.S.R.E. Age 48, married. Prefer locating in California or the west, size of community immaterial. Address Box 1913, Air Conditioning & Refrigeration News.

AVAILABLE: Top notch air conditioning and refrigeration engineer available about March 1. M.E. graduate, age 43, with 18 years background of design, development, teaching, writing, engineering sales, service, and consulting in refrigeration and air conditioning. Box 1916, Air Conditioning & Refrigeration News.

INSTALLATION & SERVICE Engineer desires position with established firm in low temperature, marine, or air conditioning field. 14 years experience, 10 in commercial and industrial installation service. 30 years of age, married, high school education. No college degree but plenty of experience and know how. Box 1917, Air Conditioning & Refrigeration News.

SALES ENGINEER: Experienced in application, installation, and service of all refrigeration, air conditioning, and heating equipment. Desires to locate in Midwest or South. Four years experience as manager of refrigeration jobbing house. Six years engineering and sales experience. Can furnish best of references. Available at once. Box 1918, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

EXCELLENT OPPORTUNITY in charge of sales department of well established and recognized wholesale parts and accessories refrigeration wholesaler. A large volume business already established covering four Eastern States. Must be thoroughly familiar with refrigeration business and must have engineering background. State qualifications in full. Box 1531, Air Conditioning & Refrigeration News.

APPLICATION ENGINEER: familiar with technical and practical applications of heat transfer equipment wanted by refrigeration and air conditioning manufacturer located in Michigan. Please advise background and qualifications. Box 1793, Air Conditioning & Refrigeration News.

FRANCHISES WANTED

DENMARK: Well known Danish firm in refrigerators and cooling works wants connection with American plants in the same branch. Representation in Scandinavia respect undertaking of patents and licenses. POLAR REFRIGERATORS Ludvig Jensen Grundtvigsvej 5, Copenhagen V., Denmark.

EQUIPMENT FOR SALE

FOR SALE: 500 used ice cream cabinets, direct expansion $10 per hole, Brine $5 per hole "as is." All sizes from 2 to 10 holes. Re-manufactured A.C. condensing units ¼ hp. up to 1½. Write for particulars. EDISON COOLING CORP., 310 East 149th St., New York 51, N. Y.

BEVERAGE COOLERS: 6 ft. capacity 22 cases; 8 ft. capacity 30 cases. These are dry coolers with heavy duty coils and one forced-air fan in 6 ft. model, two in 8 ft. model. Both have stainless steel doors and trim. Immediate delivery. GENERAL REFRIGERATORS CORP., 678 Broadway, New York 12, N. Y., STuyvesant 9-1222.

ATTENTION MANUFACTURERS: We are manufacturers of all types of frozen food cabinets, ice cream cabinets, upright freezers, and home freezers. Box 1911, Air Conditioning & Refrigeration News.

BUSINESS OPPORTUNITIES

FOR SALE: Refrigeration—Appliance Sales & Service. Established excellent clientele. Trades best known franchises. Forced to sell on account of health. Address: P. O. Drawer 911, Orlando, Fla.

OPPORTUNITY
POSITION NATIONAL SERVICE MANAGER

Young man with mechanical background, preferably with refrigerator service experience, desired by old reliable manufacturer who merchandises nationally. Opportunities excellent. Forward details to Box 1915, Air Conditioning & Refrigeration News.

World Trade News:

Westinghouse Sets Up Foreign Service Dep't

* * * * * *

Raul J. Hermitte (right), general sales manager of the newly formed South American firm, Darkel, S. A., gets set to add his signature to the Nash-Kelvinator franchise recently signed in Detroit. E. H. Wilcox, Kelvinator export manager, watches from the left, and looking on approvingly in the center is Luis P. de Tullio, Kelvinator representative. Darkel, organized by a group of Argentine business men, will construct a new plant in Buenos Aires for the fabrication of Kelvinator appliances to be distributed throughout Argentina.

PITTSBURGH—What may be the first of several service departments around the world to provide engineering counsel on operation of electrical equipment was recently formed by Westinghouse Electric International Co. for South America and the Caribbean area.

Announcement of the new department's organization and of appointment of J. F. Mann as manager was made by W. E. Knox, vice president of Westinghouse International. Mr. Mann, former assistant manager of the company's Industrial Apparatus department in New York City, has had 15 years' experience in the international field, according to the announcement.

"The new department will supplement present offices in the area, and will specialize in providing engineering service counsel and advice on the operation of electrical equipment in power stations, industrial plants, and electric railways," the announcement said. "It will probably be expanded to other foreign fields, where, as in this instance, increased operations and new industry are taxing the present staffs, now responsible for selling, installation, and service."

Mr. Mann, who was a special representative of the company in China for five years and in the Philippines for 10 years, is credited with selling the first air conditioning equipment used on Philippine railroads. He represented Westinghouse in installing street lighting in Manila and supervised power installations in mines and on sugar plantations.

Born in Junction City, Kan., Mr. Mann joined Westinghouse at East Pittsburgh in the apprentice course after being graduated from Tufts College with a B. S. degree in electrical engineering. Following numerous assignments as a special representative in charge of installing electrical equipment for the textile industry, he joined Westinghouse International in 1922 and was sent to Shanghai as representative in China.

No Longer Luxuries

MANAGUA, Nicaragua—Under a recent decree to regulate commerce, refrigerators, radios, and automobiles were eliminated from the luxury list for the entire country.

Worthington Export Head

HARRISON, N. J.—W. A. Finn has been appointed export manager of Worthington Pump & Machinery Corp. He has just been released from the U. S. Navy.

Mr. Finn succeeds George Gellhorn who has accepted a position of general manager of C. E. Halaby, one of Worthington's industrial machinery dealers in Columbia, South America.

Before the war, Mr. Finn was manager of Worthington's Boston district office. His new headquarters will be here in Harrison.

Plans of Aussies, Reds

WASHINGTON, D. C.—New Australian and Russian firms are preparing for the production of household and commercial refrigerators, according to reports to the Department of Commerce.

A plan to manufacture about 30,000 refrigerators in Australia is said to have the interest of Government officials. All types of refrigerators will be produced under this plan, but most of them will be designed for rural areas and will use kerosene as fuel.

Household and commercial gas refrigerators will be in production soon in the Soviet Union, it is reported. Units will range from a small wall type to an installation capable of producing 150 kilograms of ice every 24 hours.

Swedish Appliances in Chile

SANTIAGO, Chile — Most of the electrical appliances now available in the Santiago market are of Swedish manufacture and are priced considerably higher than comparable U. S. products, according to a report from the U. S. Embassy here. The report said postwar appliances from the U. S. are not yet available in appreciable quantities.

Demand in Venezuela

VENEZUELA—The U. S. Embassy in Caracas reports a "very large" demand in Venezuela for electric household appliances. It said importers had received notices of delays of from six to 26 weeks in obtaining shipments from the U. S.

British Radio Price Up

LONDON, England—British radios will probably be similar to prewar models, but most will be considerably higher in price, around $60 or under exclusive of purchase tax, it is predicted. A plan for reconversion of the industry's production from war to peace equipment has been approved by the United Kingdom Government.

Argentine Refrigerator Market Set At 20,000 Units Yearly by DeLind

CINCINNATI — John W. DeLind, Jr., director of exports for The Crosley Corp., has returned from a three-month tour of South America with a report that Argentina will have an annual potential market for the next few years for 20,000 household refrigerators and 100,000 home radio receivers.

During his trip made by plane, Mr. DeLind concluded tentative arrangements for the manufacture and assembly of Crosley products in the Argentine. He also prepared a survey of the South American market for appliances and held sales and distribution conferences with Crosley distributing organizations.

Reliable sources estimate a favorable dollar trade balance amounting to one and a half billion dollars, Mr. DeLind reported, indicating a splendid market in Argentina for United States goods.

FABRICATION THERE?

Mr. DeLind said his survey denoted that those American manufacturers of finished products who wish to maintain a prominent position in the Argentine market may be forced to consider fabrication of their products there either wholly or in part.

"The policy and thinking of the Argentine government — which are not generally shared by Argentine businessmen—have seemingly brought about a greater shortage of materials for manufacturing than might otherwise be the case," he commented.

Argentinians generally believe, Mr. DeLind found, that much of the inefficient and uneconomical local fabrication developed in Argentina during the war will be supplanted by partial manufacture and local assembly as soon as materials become available from the United States.

By way of example, Mr. DeLind cited the fact that during the war one prominent Argentinian manufacturer produced complete electric household refrigerators including not only the cabinets, which he said probably can be produced at a saving in the country, but the mechanical units as well. This firm, he pointed out, now plans to import the units from the United States and to assemble them into locally made cabinets.

TUBE MANUFACTURE

The Crosley official said semi-manufacture and assembly of radio sets and the manufacture of radio tubes probably would be continued. He predicted that American radio manufacturers will run into a good deal of competition from European producers, particularly British and Dutch firms who now have modern plants in Buenos Aires.

Mr. DeLind had these comments to make on other South American countries:

Chile: Although embarked on a tariff protection program to encourage local industry, her position is not comparable to that of other South American countries. Fabrication of most materials would be decidely uneconomical.

Brazil: She has a consuming population of about 7,500,000, compared with 32,000,000 population. This contrasts to Argentina where nearly 100% of the nation are consumers. Her consuming population has almost doubled in the past five years, indicating the rapid strides she is making towards becoming one of the world's greatest nations, and she has an estimated favorable dollar balance of around $750,000,000.

* * *

Portugal Looks to U. S. For Refrigerators, Radios

CINCINNATI—Their former German and other European sources gone, Portuguese consumers are looking to the United States for refrigerators and home radio receivers.

So thinks Artur Silva Carvalho, head of Nacional Radio, Limitada, described as one of Portugal's largest wholesale concerns and distributor in Lisbon for The Crosley Corp. since 1936. He offered this opinion during a tour of Crosley plants here as guest of John W. DeLind, Jr., Crosley export director.

"Portugal is in a favorable position economically and should prove an excellent market for American products," Sr. Carvalho commented. "Relations between the two countries, since the cessation of hostilities in Europe, have become closer than ever before."

He will return to Lisbon shortly.

AUDELS REFRIGERATION and AIR CONDITIONING GUIDE

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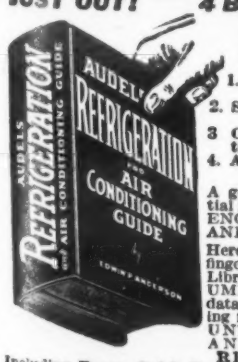

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2. Special Refrigeration Units
3 Commercial & Industrial Refrigeration
4. Air Conditioning Systems

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Tell this great reborn industry about your product. And if you haven't got it off the production line yet, tell them when you will have it. Reserve your space in the Directory today.

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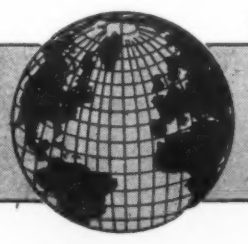

Refrigeration and Air Conditioning Directory

Published by the editors of Air Conditioning & Refrigeration News since 1929.

BUSINESS NEWS PUBLISHING CO., 450 W. FORT ST., DETROIT 26, MICH.

Production--

(Concluded from Page 1, Column 4)

November. Shipments were said to be about two thirds of the monthly output in 1941.

Radio production during December perked up considerably for the first time since the end of the war, with 100,000 domestic sets being shipped. This was 8% of the prewar average production.

Washing machines and ironers are expected to be coming off production lines in prewar volume by June, CPA said. The agency announced that 65,000 washers and ironers, or about 40% of the average monthly shipments during 1941, were shipped in December. CPA noted the entrance of several new producers into this field.

Other appliance data is contained in the report as follows:

OIL BURNERS: October production—16,000 units, a 40% increase over September and an 11% increase over the 1939 average monthly rate.

VACUUM CLEANERS: December shipments—90,000, 58% of the prewar volume, a 10% increase over November, and four times the October total. Prewar volume expected in May.

ELECTRIC IRONS: November shipments—350,000, 92% of the prewar volume, a 14% increase over November and almost double October's rate. Prewar quantity believed possible soon after settlement of electrical strike.

SEWING MACHINES: December shipments—5,000, 11% of prewar monthly production. Monthly prewar volume was 48,000, but hard to estimate when this will be attained due to reconversion problems; possibly in June.

WARM AIR FURNACES: December shipments—60,000 units, compared with 40,000 in October and 27,000 monthly in 1939. Production of 425,000 expected this year, as against 710,000 demand.

Cast Lowside--

(Concluded from Page 1, Column 3)

are under the direction of Robert J. Alcorn, executive vice president of the firm. Mr. Alcorn was formerly associated with Universal Cooler Corp., taking the new job on Jan. 1.

Claims made for the cast aluminum liquid cooling lowside include absence of freeze-up damage, no short cycling, small refrigerant charge, high efficiency. The unit has been tested by a number of manufacturers, Mr. Boling reports.

In addition to producing the liquid cooling device, The Heat-X-Changer Co. has taken over the manufacture of heavy duty floor type unit coolers, previously made by The Bush Mfg. Co. On these units, Bush supplies the coils, which are installed in a line of standardized and streamlined section casings designed by the Cecil Boling Co.

Mr. Boling is also head of the Cecil Boling Co. of New York City, manufacturers' representative and refrigeration engineering firm.

OPA Warns Consumers On 'Private' Sales

WASHINGTON, D. C.—Most consumer-to-consumer sales of used personal property are not subject to ceiling prices with the exception of such goods as refrigerators, washing machines and ironers, vacuum cleaners, gas ranges, cameras, business machines, typewriters, and automobiles, OPA has ruled in a recent clarifying amendment.

Generally exempt from price control are owner sales of such items as home furnishings and recreational equipment when the present owner bought the goods for his personal use or the personal use of other persons, or when they were given or willed to him, explains OPA.

Goods acquired originally for business use or for purposes of renting or resale, are not price exempt.

Orley Bros. Freezer Ceilings Established

DETROIT—Orley Bros. here received notification that under Order 179, MPR 591, OPA established ceiling prices on its home and farm freezer, as follows: on sales to distributors, $147.50; to dealers, $177; and to consumers $295.

$400,000 Conditioning Planned by Gimbels

PHILADELPHIA — Gimbel Bros. store here will get a new appliance department and $400,000 worth of additional air conditioning equipment as part of a $1,000,000 construction program now under way, it was announced recently.

Arthur C. Kaufmann, executive head of the Gimbel store here, said four complete floors covering more than 100 departments would be air conditioned when installation of equipment is completed this summer. The installation will condition an extra 100,000 sq. ft. of space, he said.

The new appliance and durable goods department will include model kitchens, Mr. Kaufmann stated.

Blast Coil Mfrs. Group Prepares New Standards

NEW YORK CITY—Procedure to be followed for the final adoption of a proposed code of commercial standards for air cooling coils was the chief topic of discussion at the meeting of the Blast Coil Manufacturers Institute held in the Commodore hotel here.

The tentative standards, No. TS-4044, have been circularized to the industry by the Bureau of Standards of the U. S. Department of Commerce for approval or criticism. Changes suggested by the industry will be considered for incorporation in the final set of standards.

Present officers of the Institute were reelected unanimously. R. M. Stikeleather of the B. F. Sturtevant Co., Boston, is president; H. B. Hedges of John J. Nesbitt, Inc., Philadelphia is vice president; H. P. Peterson of Bush Mfg. Co., Hartford, Conn., is secretary-treasurer.

Electric Blanket Price Set for Simmons

NEW YORK CITY—A retail ceiling price of $41.65 was recently approved by OPA for an electric blanket, Model A-1, manufactured by Simmons Co.

Maximum prices for sales and deliveries to other classes of purchasers were fixed as follows by Order 4814, MPR 188: to wholesalers (jobbers), $23.46; to retailers for six or more units, $27.41; and to retailers for less than six units, $28.59.

Robert Quinn Appointed Asst. Sales Head for Carrier Conditioners

SYRACUSE, N. Y.—Appointment of Robert P. Quinn as assistant director of sales of applied and packaged air conditioning for Carrier Corp. has been announced by Arthur P. Shanklin, vice president in charge of dealer sales for the organization.

Mr. Quinn received his honorable discharge after serving three years as a Major in the Army Air Forces.

Before entering the service, Mr. Quinn was associated with Shook & Fletcher Supply Co., Carrier distributor in Birmingham, Ala. Mr. Quinn was manager of the air conditioning and refrigeration division of the concern.

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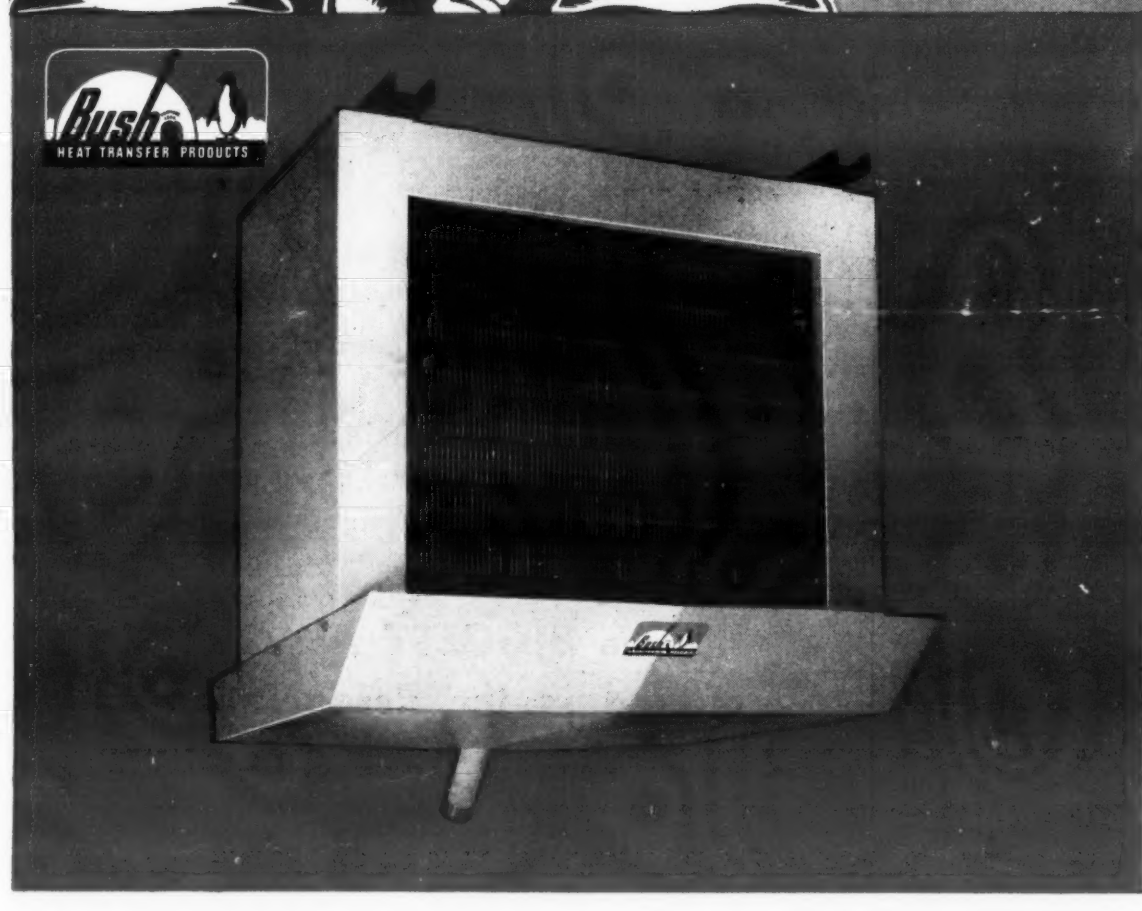
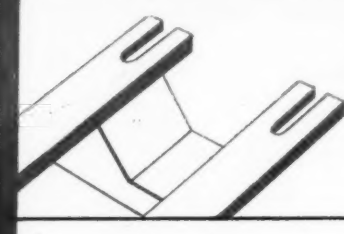
call backs are costly...

Bush *dependability*

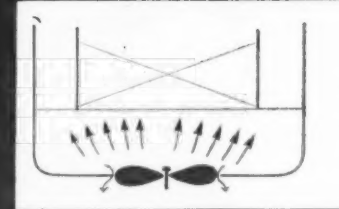
insures your profits

Bush HEAT TRANSFER PRODUCTS

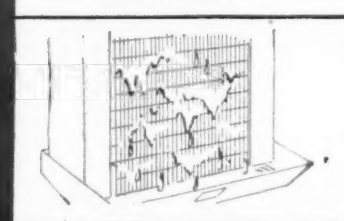




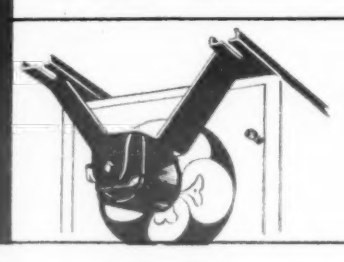
SLOTTED HANGERS—Permit greater ease of installation. Slip under lag bolts at one end—giving support while other end is fastened.



DEEP PLENUM CHAMBER — An outstanding BUSH feature engineered for best distribution of moving air thru core of cooling unit



DEFROSTS QUICKLY — Uses ordinary tap water. Water enters spray tank, flows down coils, quickly removes frost—flows down drain.



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